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ABSTRACT

The study used a multiple case study method to investigate the quality of the educational and social experiences of elementary-level and secondary-level children with disabilities currently integrated within the Australian regular school system. This second stage of the study used for its sample 23 children with intellectual disabilities, 18 with physical disabilities, 7 with multiple disabilities, 5 with learning disabilities, 16 with sensory disabilities, 3 with Down Syndrome, 6 with miscellaneous disabilities, and 20 who were in support classes for physical or intellectual disabilities and 20 who were in support classes for physical or intellectual disabilities within a regular school. Most students were found to be effectively mainstreamed, a condition which was found to be closely associated with: (1) structured teaching methods including clear objectives, regular monitoring, and a teacher-directed approach to basic skills; (2) appropriate support; and (3) positive school ethos. The nature of the child's disability did not appear to affect the success of the placement. Integration was facilitated when parents or caregivers were committed to mainstream placement and willing to cooperate with the school's program. Appendices report exemplary case studies. Thirty references are listed. (PB)

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MACQUARIE UNIVERSITY

THE INTEGRATION OF CHILDREN WITH DISABILITIES INTO REGULAR SCHOOLS

- A NATURALISTIC STUDY -

STAGE 2 REPORT

May 1989

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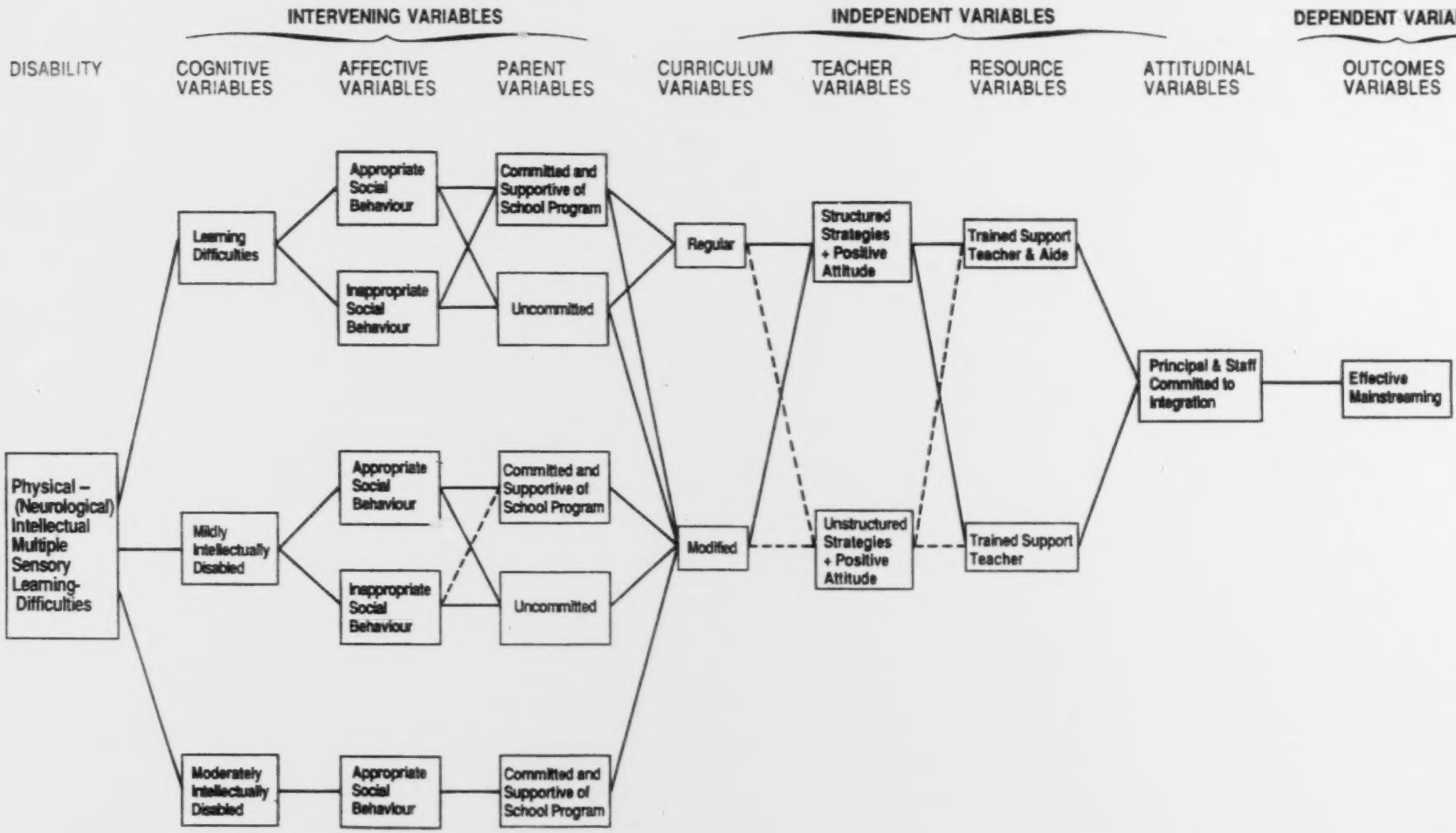
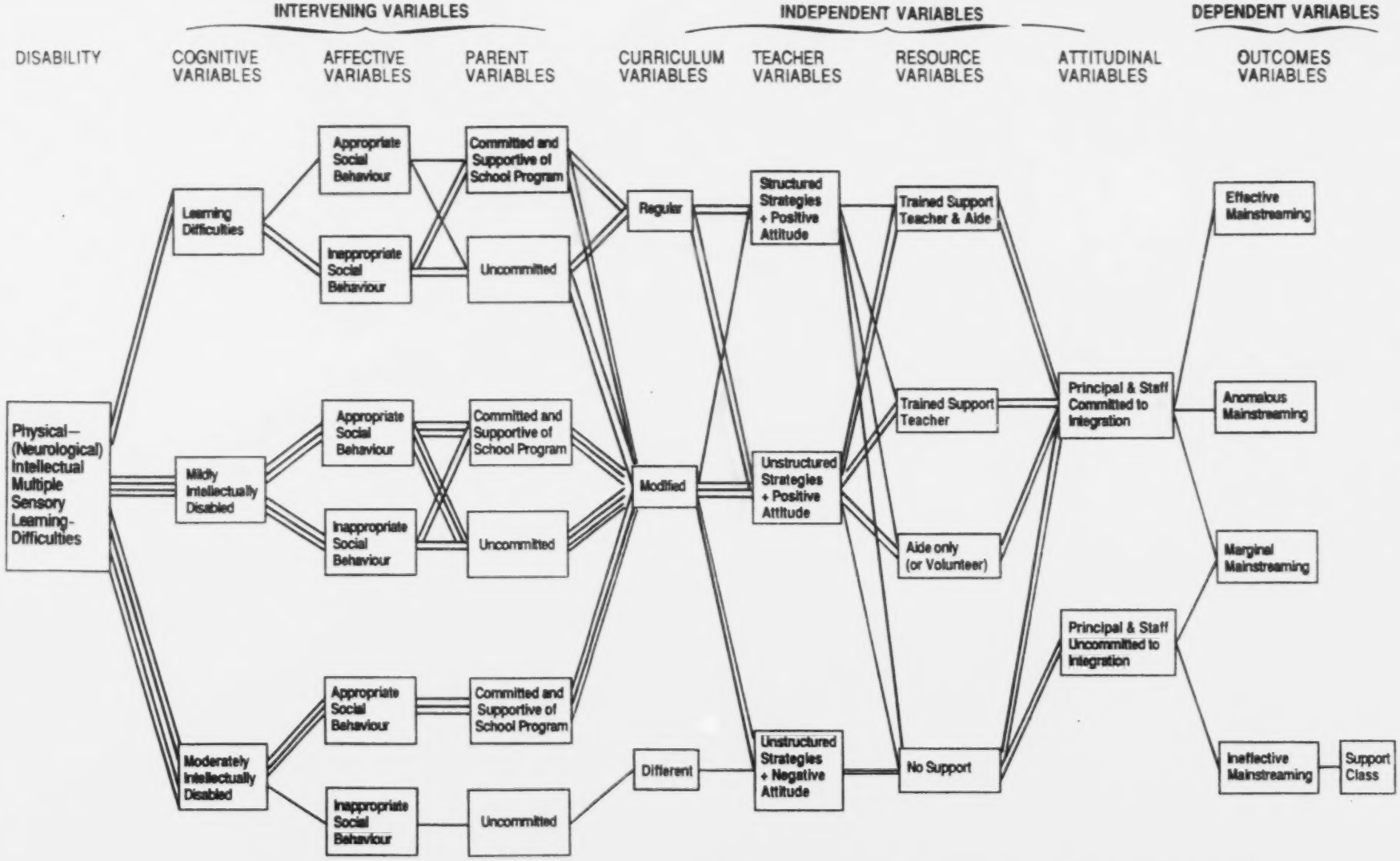
EFFECTIVE MAINSTREAMING OF STUDENTS WITH DISABILITIES



THE INTEGRATION OF STUDENTS WITH DISABILITIES INTO REGULAR CLASSES



Effective Mainstreaming: HighTotal Integration Index + High Total Validation Index

Anomalous Mainstreaming: Low Total Integration Index + High Total Validation Index or (rarely) vice versa

Marginal Mainstreaming: Total Integration Index + Total Validation Index both marginal

Ineffective Mainstreaming: Total Integration Index + Total Validation Index both low

THE INTEGRATION OF STUDENTS WITH DISABILITIES INTO REGULAR SCHOOLS

- STAGE 2

INTRODUCTION

It is clear from both national surveys (Andrews, 1985; Gow, Ward, Balla and Snow, 1988; Grimes, 1985) and directives issued by State education departments (Collins, 1985; Tasmanian Report, 1983; Winder, 1988) that Australia is moving towards the practice of integration for all but the most severely handicapped of its children. While the various states and territories differ markedly in their approach to policy formulation and implementation, this general movement towards integration is remarkably uniform throughout the country. The motivating forces behind such a significant social and educational movement are complex but probably three major precipitating influences can be identified;

1. the recognition that children with disabilities have the right to be educated in environments which are non-discriminatory and which maximise the normalcy of their experiences;

2. the drive to develop efficient and flexible systems to deliver the highest quality of education to children with special needs; and,

3. the need to develop schools which are maximally effective for all children.

Although such influences have been contemporaneous, it is likely that the differing emphases placed upon them have generated the different approaches to integration taken in each of the Australian states and territories. This diversity must also reflect the situation that, despite a firm commitment to integration by the Federal Government (Andrews, 1984), the provision of special educational services, which embody the principle of integration, has not been enshrined in legislation as has been the case in both the USA (PL 94-142, 1975) and the UK (Education Act, 1981).

In addition to shaping the approach to service delivery, these influences can also affect both the content and the methodology of research. Thus researchers who are preoccupied with rights issues will be most interested in examining questions about the quality of the child's educational experience and the positive effects upon school and society brought about by the integration of disabled children. Those involved with research into the development of systems and technology will tend to investigate issues such as the effectiveness and efficiency of resource provision, while the many general and special educators concerned with the movement for effective schools are most likely to evaluate total school organisation, various forms of practice, curriculum development and creative use of resources. However, each approach can contribute to the development of data bases which, among other things, may identify the suitability of certain forms of education for special needs children, identify good teaching practice and generally

monitor progress in the development of special and regular educational practice.

Thus far, however, there have been a number of problems associated with research into integration. For example, few of the empirical studies dealing with efficacy issues have escaped criticism, c.f. the recent critical comment by Zigler and Hodepp (1986) of Dunn's seminal paper attacking special class placement (1968) and the methodological criticism (Danby & Cullen, 1988) levelled at Carlberg and Kavale's meta-analysis (1980) supporting regular class placement for intellectually disabled students. Furthermore, large quantitative surveys on integration, concerned with measurement and prediction, have also recently come under attack (Barton & Tomlinson, 1981). Indeed Walsh (1972) has stated that the use of quantitative techniques may serve merely to sustain particular views about social reality in education rather than to clarify that reality. This occurs because researchers attempt to force data into preconceived "objective" categories, which may mask the very processes under investigation. Thus, the collection and analysis of data, are, strictly speaking, predetermined by the a priori theory employed and the function of research becomes essentially the testing of theory (Corrie & Zaklukiewicz, 1985).

According to an alternative interpretation, an equally important aspect of research lies in the development rather than in the verification of theory. This requirement essentially involves a change of emphasis in research methodology where the primary concern is with description and interpretation rather than with measurement and prediction (Corrie and Zaklukiewicz, 1985). While conventional approaches such as the large scale survey have investigated only the measurable outcomes of an educational program, the use of descriptive and interpretative methods has the potential to provide a much wider range of information. Case study methods, in particular, are recommended as an appropriate means of achieving this objective. While the proponents of qualitative/case study research methods in special education certainly do not consider quantitative data as unproductive (Sadler, 1985), they suggest that a greater range of information can be provided by case study analysis in combination with improved quantitative techniques. Therefore, this type of investigation is likely to produce data of more direct relevance to both practitioners and decision-makers and is also likely to contribute towards improved conceptualisation, which will no doubt be welcomed by those (eg. Barton & Tomlinson,1981) who have drawn attention to the under-development of theory in special education.

This approach has been taken by the present research team. It is based upon the conviction that, whereas most attitudinal surveys of integration have raised issues which researchers, irrespective of their philosophies, have considered important (Center, Ward, Parmenter & Nash, 1985; Center & Ward, 1987; Harvey, 1985; Thomas, 1985), they have shed little light on the educational realities facing the participants; children, peers, parents and school personnel. Thus, in order to identify the factors relating to child/family, classroom and school which are involved in examples of successful integrated placements, the multiple case study has been adopted as the most relevant methodology for the purpose of the investigation to be described. At the same time certain

quantitative procedures have also been used in order to form a data-base for further cross-sectional and longitudinal research on children with disabilities integrated into regular schools.

However sophisticated the methodological approach, it cannot, of course, determine whether integration for disabled students is right or wrong. This requires a moral judgment rather than an educational decision. Nevertheless, it can provide both descriptive and quantitative evidence about the suitability of an integrated placement for an individual student. If it can then show that such a placement is successful in academic and social terms, it can contribute to both the moral debate surrounding the principle of integration as well as the specific research issue of efficacy. For example, it seems difficult to deny a student the opportunity of an integrated placement when evidence shows that, given certain conditions, students with similar disabilities have been successful in the mainstream. Secondly, cumulative data which reflect a high probability of academic and social success in integrated placements would seem to be prima facie evidence of efficacy without the need for elaborate comparative studies.

With these issues in mind, researchers from the Macquarie University Special Education Centre approached the NSW Education Department in 1986 in order to propose an intensive, multiple case study of children in metropolitan and country NSW schools who had been enrolled under the "Enrolment of Children with Disabilities" policy. The proposal was accepted by the Department of Education, which then provided generous funding for the study. However, significant contributions were also made by other agencies such as the NSW Society for Crippled Children, the Spastic Centre of NSW, the Catholic Office of Education (Met. West), the Down Syndrome Program and the Special Education Centre at Macquarie University, the University of Wollongong, the Hunter Institute of Higher Education and Mitchell College of Advanced Education. Indeed, researchers from the last three institutions have formed part of the research team, making possible a study of unique size and scope, to address the issues of integration in NSW schools.

THE STUDY

1. AIMS

This research study attempts to produce basic data, via the multiple case study method, about the quality of the educational and social experiences of children with disabilities who are currently integrated and maintained within the regular school system. It also aims to identify those factors relevant to child/family, classroom and school which are associated with successful academic and social integration. (A full description of the child, classroom and school factors selected for inclusion in the study can be found in the Stage 1 Report, (Center, Ferguson & Ward, 1988).

The study has been divided into two stages, with Stage 1 involving intensive observations of relatively small numbers of children across all disability groups in regular infants and primary classrooms. This stage was essentially a model building exercise to provide a basis for Stage 2 and the methodology and results are reported elsewhere (Center, Ferguson & Ward, 1988; Ward, Center & Ferguson, 1988). Stage 2, which is described in this paper, is an extension and elaboration of Stage 1 in terms of both the sample surveyed and the descriptive procedures which have been utilised.

2. METHODOLOGY - Stage 2

Sampling Procedures

The children selected for study in Stage 2 were those whom Stage 1 had identified as needing further intensive investigation. These included:

(1) a larger group of children with intellectual disabilities currently enrolled in regular primary classes (N = 23);

(2) a larger group of children with physical disabilities of neurological origin currently enrolled in regular primary classes (N = 18);

(3) a larger group of children with multiple disabilities currently enrolled in primary classes (N = 7); and

(4) a small group of children from Stage 1 with either intellectual, neurological or multiple disabilities who needed follow-up because they were changing departments, i.e. progressing from either infants to primary, primary to high school or changing from regular to special classes (N = 6).

In addition, at the request of a different funding body in 1988, similar observations were made on:

(5) a small group of children with learning difficulties re-integrated into regular primary classes after six months to

one year in a special school at the Macquarie University Special Education Centre (N = 5).

An additional focus of Stage 2 was the trialling of new observational procedures on:

(1) a small group of students with sensory disabilities currently integrated into NSW High Schools (N = 16);

(2) a small group of Down Syndrome children currently integrated in regular NSW High Schools who had received early intervention at the Macquarie University Down Syndrome Program (N = 3);

(3) a small group of children integrated into support classes for the physically disabled (P classes) and for the intellectually disabled (IM & IO classes) with a view to describing the most successful operation of a support class attached to a regular school (N = 20). Both the children and the support class itself were used as the units of analysis.

As the NSW Department of Education was already involved in a large-scale study of children with behavioural/emotional difficulties, these children were excluded from the Stage 2 study.

Apart from the children selected by Down Syndrome and Special Education Centre staff, all the students included in the study were selected randomly from lists provided by central and regional integration officers from both the Education Department (all metropolitan and four country regions) and the Catholic Office of Education (Met.Western region). When approval had been obtained from the relevant regional directors, only those students were selected whose principal, classroom teacher and parents gave permission for the 6-8 day observation period and for interview sessions. Only 5 students needed to be deleted from the sample using this procedure, and were replaced by others from the relevant disability category again selected randomly.

The final effective sample contained 91 students from 87 schools in the previously designated regions, represented in the following way (see Table A).

TABLE A: 1988 SAMPLE (N=91)

		Metrop.	M/C	Country	Total
PRIMARY MAINSTREAM					
1.	Intellectual Disabilities	6	1	14	21
2.	Physical Disabilities of Neurological origin	9	-	9	18
3.	Multiple Disabilities	4	2	1	7
4.	Learning Problems	5	-	-	5
		24	3	24	51
HIGH SCHOOL MAINSTREAM					
5.	Intellectual Disabilities	2	-	-	2
6.	Sensory Disabilities	10	-	6	16
		12	-	6	18
	Total Mainstream Sample			=	69
PRIMARY SUPPORT CLASSES					
7.	P (physical)	4	-	1	5
8.	IO (mod. intellectual)	4	-	6	10
9.	IM (mild intellectual)	3	-	2	5
		11	-	9	20
HIGH SCHOOL SUPPORT CLASSES					
10.	IO (mod. intellectual)	1	-	-	1
11.	PSU (partially sighted unit)	1	-	-	1
		2	-	-	2
	Total Support Class Sample			=	22

TOTAL SAMPLE = 91

3. OBSERVATIONAL PROCEDURES

Six observers in the metropolitan regions of Met. North, Met. West, Met. East and Met. South West, together with six observers in the country regions of Hunter, Western, South Coast and North Coast spent approximately 6-8 days in each school, collecting a variety of qualitative and quantitative data on each child/family, classroom and school. The three main sources of data included:

(a) detailed qualitative observations of the child in both the classroom and playground;

(b) quantitative measures such as basic skill assessments, observational schedules, daily record schedules, rating forms, questionnaires, self-report inventories and sociometric techniques to assess the total learning environment of the child; and

(c) interviews with all relevant school personnel, parents, and selected peers.

For the high school students with sensory impairment and the special class students, teacher questionnaires, sociometric techniques and student interviews were somewhat modified to suit the population surveyed.

4. INSTRUMENTATION

(a) Child Measures

In order to measure the scholastic progress of the target children relative to their peers in all primary mainstream classes, the classes received norm-referenced and criterion-referenced tests in reading accuracy, reading comprehension, maths computation and maths problem solving skills (April and November). In high school mainstream classes, either examination or assessment rankings for maths and reading were obtained from teachers (April, November). Teachers' ratings of the academic competence of the target children relative to their classmates were also obtained for all students in the sample.

For measures of reading competence the Revised Form of the Neale Analysis of Reading Skills (Neale, 1988) was used where possible and the Macquarie Special Education Centre Written Word Attack Skills or the A.A.M.D. Adaptive Behaviour Scales (Leland, Shoaee & Vayda, 1975), in the case of students for whom the Neale test was inappropriate. Computational skills were assessed by a criterion-referenced test devised specifically for Stage 2 which could be administered at all levels of primary school and in low-streamed Year 7 High school classes. In some junior IM & IO classes it was necessary to use Macquarie University Special Education Centre mathematics tests for first/second grade or the A.A.M.D Adaptive Behaviour Scales when students failed to score on the more advanced criterion-referenced mathematics test.

Parents' opinions of their children's academic progress within the class group were also sought during the parent interview. The target child's academic learning time in basic skills (using an interval-sampling observational schedule adapted from Larrivee, 1985), amount of classroom withdrawal for academic lessons and appropriateness of academic curricula were also assessed. The amount of curriculum modification needed by each child in academic subjects was recorded by each classroom teacher in the teacher questionnaire. All academic measures obtained in this way became the components of each child's academic integration index.

The social status of the students in the sample was obtained in years 3-6 by using the Perception of Social Closeness Scale (Horne, 1977) where every class member rated every other class member on a five-point ordinal scale of social acceptability. For high school students a more indirect sociometric scale was adopted (Sabornie and Kauffman, 1985), while in IO and 1M classes a modified sociogram (based on Moreno, 1934) was used in which children selected up to 3 class members with whom to sit, play and work. Teachers' ratings of the social acceptability of the target child as well as his/her classroom behaviour relative to the peer group were also obtained. Parents' opinions of their children's social/emotional progress and descriptions of out-of-school activities were also elicited in the parent interview. In addition, observations of the target children's behaviour in the classroom, interactions with peers in the playground, school access and general participation in whole school activities were carried out in each school. All social measures obtained in this way became the components of each child's social integration index.

In the case of the support class students, somewhat different indices were devised and are discussed fully in Section IV of the study.

(b) Classroom Measures

The rationale for the classroom measures selected for inclusion in the research study and trialled in Stage 1 can be found in the Stage 1 Report (Center, Ferguson & Ward, 1988, p.8; Ward, Center & Ferguson, 1988). Any measures which were found to have no significant association with the academic, social or physical integration indices in Stage 1 were removed from Stage 2. These were:

1. Teachers Questioning Pattern Observations Form (Larrivee, 1985);

2. Intervention Strategy Record (Larrivee, 1985); and

3. Intervention Strategy Inventory (Larrivee, 1985).

Additional modifications were made to the main classroom observation schedule (Observer Rating Scale (ORS), Larrivee, 1985) adapted in Stage 1 to reduce its highly inferential nature) so as to improve its inter-item reliability and to increase the variability of its sub-scales. The Cronbach alpha of the modified instrument (α = .81) and its greater association with the dependent

variables in Stage 2 suggest that the alterations were successful. A Daily Record Form (devised specifically for Stage 2), which recorded the daily teaching strategies of teachers in basic skill areas, provided additional significant data on classroom procedures. A new specifically designed interval-sampling observational schedule - the Student Observation Schedule (SOS) was also used in Stage 2 to validate student/peer and student/teacher interactions which had only been rated subjectively by observers and teachers in Stage 1. Questionnaires and interview schedules adapted from Stage 1 were used to provide information on any instructional variables that were not covered by the observational schedules and to probe some aspects of classroom practices in more depth.

As well as the observation of classroom practices the attitudes of classroom teachers in the sample to the integration of children with disabilities were also measured in Stage 1 using a "Survey of Teachers' Opinions Relative to Mainstreaming Special Needs Children" (Hudson & Clunies-Ross, 1984 adapted from Larrivee & Cook, 1979). As this scale is concerned only with special needs children as a group and does not discriminate between disabilities, it was replaced by an attitude scale devised by Center, Ward, Parmenter & Nash (1985), and used in a number of Australian research studies. The use of this scale, to measure both teachers' and principals' attitudes, also permitted comparisons across individual disabilities between those school personnel who had exposure to disabled children and those who had not.

(c) School Measures

Data from attitudinal studies on integration (Center et al, 1985, Center & Ward, 1987, Thomas, 1988) indicate that a major concern of teachers relates to the support services with which they are provided. Thus it was considered important to obtain an indication of both the amount and appropriateness of resource provision for each integrated and support class child. The actual amount of resource support (in hours) for each target student was recorded, while appropriateness was rated on a four-point scale by principals, teachers and observers, with the latter's rating being given a heavier weighting in the final adjusted score. Another variable which proved to be associated with integration success in Stage 1 was school ethos, as measured by attitudes of principals (discussed in the previous section) and other staff members, which were assessed subjectively by each researcher on a 5 point scale through observation and discussions with parents and general school staff. Thus amount and appropriateness of resource support together with school ethos (general staff attitudes to integration) were the main school measures selected for Stage 2. The School Priorities Scale which principals completed for Stage 1 was not found to correlate with integration success and so was omitted from Stage 2.

5. PROCEDURES

Prior to the observation period in each school, all country and metropolitan researchers spent one week together to establish

reliability on the observational schedules adapted from Stage 1 or devised specifically for Stage 2. Researchers were divided into pairs, with one researcher from Stage 1 training a new researcher selected for the follow-up study. Reliability figures of 85%-90% were obtained for the Observational Record Schedule (ORS) the Academic Learning Time Assessment (ALT), the Daily Record Form (DRF), the Playground Observation Schedule (POS) and the Student Observation Schedule (SOS). All researchers used the same instruments in mainstream primary and low streamed Year 7 High School classes (2 cases). In the country regions, all researchers worked in primary schools, high schools and support classes. In the metropolitan regions, researchers tended to specialise more so that some observed only in primary schools, some were mainly involved with special classes and one researcher concentrated only upon high schools.

6. COMPILATION OF DATA

All academic and social/emotional measures obtained for the target children, through direct testing, observation schedules and teacher/parent ratings from questionnaires and interviews were recorded separately to establish two discrete indices of integration. The index of academic integration for each child consisted of 8 components measuring:-

1. Teacher's rating of academic progress (from teacher questionnaire). Maximum = 3 points (3 - average or above [relative to class group]; 2 - below average; 1 - well below average).

2. Parent's rating of academic progress (from parent questionnaire). Maximum = 3 points (3 - average or above [relative to class group]; 2 - below average; 1 - well below average).

3. Child's progress over 6 months in Maths relative to the class group (data from criterion-referenced Maths tests). Maximum = 3 points (3 - average or above; 2 - 1 SD* below average; 1 - 2 SD's - below average).

4. Child's progress over 6 months in Reading relative to the class group (data from Standardised Reading tests). Maximum = 3 points (3 - average or above; 2 - below average; 1 - little or no progress measured). Where child was on a different curriculum (3 - considerable progress; 2 - a little progress; 1 - no progress).

5. Degree of curriculum modification for the child (obtained from teacher questionnaire). Maximum = 6 points, 3 in each academic area (3 - no modification, 2 - some modification, 1 - entirely different program).

6. Appropriateness of class curriculum for the child (observer assessments of Reading and Maths curricula). Maximum = 6

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* SD = Standard Deviation.

points, 3 for each academic area (6 - appropriate; 4 - some areas inappropriate; 2 - inappropriate).

7. Child's time on task in basic skills - Reading/Maths. Maximum = 6 points, 3 for each curriculum area (6 - average; 4 - 1 SD below average; 2 - 2 SD's below average).

8. Amount of child withdrawal from classroom for academic instruction (scored negatively). Maximum = 6 points, 3 for each academic area (6 - no withdrawal; 4 - some withdrawal; 2 - withdrawal for all academic areas).

Maximum Score = 36 points

The index of social integration for each child contained 12 components measuring:-

1. Teacher's rating of social acceptability (from teacher questionnaire). Maximum = 3 points (3 - average [relative to class group]; 2 - below average; 1 - well below average).

2. Parent's rating of social acceptability (from parent questionnaire). Maximum = 3 points (3 - average; 2 - below average; 1 - well below average).

3. Peers' ratings of social acceptability on a sociogram. Maximum = 3 points (3 - average; 2 - below average; 1 - well below average).

4. Teacher's rating of child's social acceptability by peers (obtained from rating scale prior to observations). Maximum = 3 points (3 - average; 2 - below average; 1 - well below average).

5. Change in social acceptability over 6 months (obtained from follow-up interview with teacher). Maximum = 3 points (3 - improved or remained same [if child was already in the top group]; 2 - remained same [if child was not in the top group]; 1 - decreased).

6. Teacher's rating of child's class behaviour relative to peers. Maximum = 3 points (3 - totally acceptable; 2 - sometimes unacceptable; 1 - frequently unacceptable).

7. Observer's rating of child's class behaviour relative to peers (including disruptive behaviour observed on ALT). Maximum = 3 points (3 - totally acceptable; 2 - sometimes unacceptable; 1 - frequently unacceptable).

8. Observed playground interaction compared with random same-sex peer from class group (6 observations taken; 3 at recess; 3 at lunchtime for approx. 2.5 hours in total). Maximum = 3 points (3 - totally appropriate; 2 - somewhat inappropriate; 1 - totally inappropriate or isolated).

9. Teacher's rating of playground interaction (from teacher interview). Maximum points = 3 points (3 - totally

appropriate; 2 - somewhat inappropriate; 1 - totally inappropriate or isolated).

10. Out-of-school contact with school friends (from parent interview). Maximum points = 3 points (3 - as much contact as non-disabled sibling; 2 - less contact; 1 - no contact).

11. Access to other areas of school (assessed by observer). Maximum = 6 points (6 - all; 4 - some; 2 - few/none).

12. Participation in general school activities (assessed by observer). Maximum = 6 points (6 - all; 4 - some; 2 - few/none).

Maximum Score = 36 points

In Stage 1, three integration indices were computed, in academic, social and physical areas, for which Cronbach alphas of .63, .86 and .57, respectively, indicated that each discrete scale was conceptually valid.

In Stage 2, however, the Cronbach alpha for the Physical Scale (which contained only 3 items) was too low for its acceptance as a valid behavioural domain. Consequently, one of its three items was absorbed into the Academic Scale (item 8) and the other two into the Social Scale (items 11 and 12). Following this re-allocation, Cronbach alphas for the Academic and Social Integration Indices were again computed and were found to be .61 & .72 respectively.

All components of the two indices were summed and expressed as a percentage of the total possible score. The two discrete indices were also summed and averaged in order to obtain a <u>total Index of Integration</u>. The latter was validated, to some extent, by comparison with a separate measure labelled the <u>Total Validation Index</u>, which was the degree of satisfaction expressed for present and continued integration by all persons concerned with the student's education as well as by the student himself. This index was expressed in percentage terms in order to standardize the reporting procedure.

The two indices of integration and the Total Integration Index became the dependent variables for each of the mainstream students in the study - i.e. those High School students with sensory disabilities, and those primary students with physical intellectual, multiple and learning difficulties. Slightly different indices became the dependent variables for the support class sample and will be discussed in the relevant section (see IV below). The predictor variables, for the mainstream group only, consisted of children's disability and grade, teachers' classroom strategies, staff attitudes and support provision analysed in order to obtain the most economical and efficient group of independent variables. Multi-factorial ANOVAS were computed where appropriate and multiple regression analyses were also undertaken in order to estimate the best linear combination of predictive variables.

7. PRESENTATION OF RESULTS

Section I presents the data for all mainstreamed disability groups in terms of Integration and Validation Indices. Comparisons are drawn between the results obtained for the different disability groups and also between Stage 1 and Stage 2 results. Reference is made to the factors which appear to be strongly associated with success in the mainstream. In Sections II, III and IV, multiple case study data are presented for each disability group, children in isolated areas and each support class group. Case histories which exemplify effective, anomalous, marginal and unsuccessful placements and the associated factors are fully discussed.

RESULTS

SECTION I

THE TOTAL MAINSTREAM SAMPLE

SECTION I

THE TOTAL MAINSTREAM SAMPLE

Although this investigation is essentially a multiple case study, it is possible to detect general trends about the current status of students with disabilities who are integrated into regular classes.

Table 1 shows the Total Integration Index and the Total Validation Index for each mainstream student in the sample. The Total Integration Index (expressed as a percentage) is composed of measures of the child's academic and social integration derived from all relevant questionnaires, observational schedules and direct testing. The Total Validation Index (also expressed as a percentage) indicates the perceived suitability of the integrated placement both at the present time and for the following year.

Clearly, whenever the Total Validation Index is 100%, there is no question about the effectiveness of the mainstreaming situation from the viewpoint of student, parent or school. If the Total Validation Index is 92%, this indicates that some reservation about mainstreaming is expressed either by parent, student or a member of the school staff, but that, essentially, it is a satisfactory placement. Between 80% and 90%, it appears that the integrated placement is somewhat problematic and doubts about continued integration are being more generally voiced. Below 80% there is evidence that the child's placement in the mainstream is considered inappropriate by all, or most, of those involved in the child's educational process.

The Total Validation Index assists in the interpretation of the independently derived Total Integration Index. By cross-referencing the former with the latter, it would appear that a Total Integration Index of about 78%+ is associated with an integrated situation perceived to be effective. Using this cut-off point, it appears that 45 cases, or about 65% of the total sample of 69 students, are being successfully mainstreamed in terms of academic and social outcomes. The placement of about 17% of the sample (ie. 12 cases) can be regarded as problematical, while 3 cases can be viewed as marginal. The integration placements of a further 13% (9 cases) cannot be so neatly classified. Eight of these students, although below the general cut-off for acceptable progress in the mainstream, are still considered successfully integrated by most, if not all, of the people concerned with their integration. Only one student assessed as being successfully maintained in the mainstream, is recommended for future special class placement by her school. These anomalies will be considered in greater detail under the appropriate category sections.

TABLE 1

TOTAL INTEGRATION AND VALIDATION INDICES FOR STUDENTS IN MAINSTREAM CLASSES

1. Students with Physical Disabilities			2. Students with Intellectual Disabilities			3. Students with Maltiple Disabilities			4. Student with sensory Disabilities			5. Students with Learning Difficulties		
Case No.	Total Integ. Index (%)	Total Valid. Index (%)	Case No.	Total Integ. Index (%)	Total Valid. Index (%)	Case No.	Total Integ. Index (%)	Total Valid. Index (%)	Case No.	Total Integ. Index (%)	Total Valid. Index (%)	Case No.	Total Integ. Index	Total Valid. Index
6	90	100	1 *	67	68	8	81	100	24	97	92	10	89	92
11 *	68	84	4	81	100	18	93	100	28	91	100	12	92	100
16	80	100	5	80	100	19	87	100	51 °	72	92	13 °	76	92
20	87	100	7	83	100	23 *	78	64	60 *	66	68	14	90	100
22	90	100	15 *	53	60	36	83	100	61	93	92	31 °	87	72
30 °	70	92	17	88	100	38 +	73	88	63 °	84	88			
32	83	100	21 *	63	32	41	81	100	74 °	67	92			
40	91	100	25	90	100				79	91	92			
44	82	100	35 °	82	100				80	81	82			
45	89	100	37 °	72	92				82 °	88	92			
47 °	70	100	39 *	72	70				83	72	92			
53	83	100	42 *	71	72				84	99	100			
54	82	92	43	78	92				85	97	100			
56 °	71	100	46 *	73	80				87	85	92			
58	78	100	48 *	62	56				88	88	92			
59	85	92	50 *	75	72									
75	87	92	52	78	100									
76 +	79	84	57	82	100									
			64	90	100									
			66 *	76	56									
			77	88	92									
			78	78	92									
			86	81	100									
			31	87	72									
TOTAL (n=18)	81.4	96.4	TOTAL (n=23)	76.7	83.4	TOTAL (N=7)	82.3	93.1	TOTAL (n=16)	85	92.3	TOTAL (n=5)	86.8	91.2

* less than effective + marginal ° anomaly

TABLE 2

COMPARISON OF MEAN INTEGRATION INDEX AND VALIDATION INDEX FOR ALL MAINSTREAMED DISABILITY GROUPS IN STAGE 1 AND STAGE 2

Type of Disability	Mean Integ. Index (%)		Mean Valid. Index (%)	
	Stage 1	Stage 2	Stage 1	Stage 2
1. Physical	89.9 (n=10)	81.4 (n=18)	97.0	96.4
2. Intellectual	82.0 (n=12)	76.7 (n=23)	87.1	83.4
3. Multiple	66.0 (n=3)	82.3 (n=7)	46.7	93.1
4. Sensory				
- High School	-	85.0 (n=16)	-	92.3
- Primary School	93.4 (n=8)	-	98.8	-

A closer inspection of the mean group results (Table 1 and Table 2) suggests that students with physical disabilities still appear to be successful in the mainstream although they are now much closer to marginality than was evident in Stage 1. This can, to a large extent, be explained by the nature of the Stage 2 sample, which was selected to contain primarily those children with physical disabilities whom Stage 1 had indicated might have the greatest difficulties in the mainstream, ie. children whose physical disabilities were of neurological origin and who were in upper primary classes. It is interesting to note, however, that their Total Validation Index remains as high as that for the more successful Stage 1 sample, showing evidence of general school tolerance of academic and social diversity, with respect to children having physical disabilities.

Children with intellectual disabilities in primary classes now appear, as a group, to be slightly below the cut-off point for effective mainstreaming. However, once again, they exhibit more variability than the other groups of children, with about 60% successful and 40% not reaching criterion on either the Integration or Validation Index, indicating that it is not necessarily the disability which militates against successful integration. The smaller number of cases classified as anomalous compared with other disability groups suggests that in upper primary classes there is less tolerance for academic and social diversity for children with intellectual disabilities.

Another interesting result of this follow-up study concerns the number of successful case studies of children with multiple disabilities when compared with the ones described in Stage 1. This suggests that disability, per se, is not the dominant predictor of integration success for this group, as was tentatively suggested last year, but that classroom and school factors are much more closely associated with positive outcomes for children with multiple disabilities.

In terms of the new component in the Stage 2 study, it would appear that students with sensory disabilities in high schools can be regarded as well integrated, although not as consistently as the primary students with sensory disabilities observed in Stage 1. The high school students, however, appear to be the most successful group of children enrolled under the Enrolment of Children with Disabilities policy. Thus, the tentative conclusions of Stage 1 regarding: 1) the rank order of successful mainstreaming for different categories of disabilities, and 2) increased mainstreaming difficulties in high schools and upper primary classes appear to have been substantiated by the Stage 2 study.

As far as children with learning difficulties are concerned, these results can only be regarded as provisional, pending confirmation with a larger sample. However, the data suggest that some difficulties are experienced in re-integration which are predominantly associated with lack of appropriate teaching strategies and resource support, particularly at the primary level. Detailed analyses of the conditions affecting exemplary integration for all these groups of children will be found under each disability category in Section II.

The factor that is most closely associated with successful total integration in this study concerns the amount of structure observed in teachers' instructional style. Structure was defined as having the following components:

1. the regularity with which teachers monitor their pupils' basic skills;

2. the clarity of their lesson presentation;

3. the consistent provision of a lesson outline;

4. the provision of continuous feedback to students about oral or written work;

5. the use of teacher-directed approaches in basic skill areas;

6. the teacher's active involvement with students during seatwork; and

7. the presentation of step-by-step sequenced lesson directions.

On its own, the presence of structured teaching strategies accounts for almost 20% of the variance of the total integration index. However, appropriateness of support also emerges as a subsidiary but important factor associated with effective mainstreaming.

Appropriateness of support was rated on a 4 point scale by principals, teachers and researchers with the latter's rating given double weighting. The following criteria were used when estimating support appropriateness:

1) whether support teachers had special education training.

2) whether integration aides were provided with professional supervision.

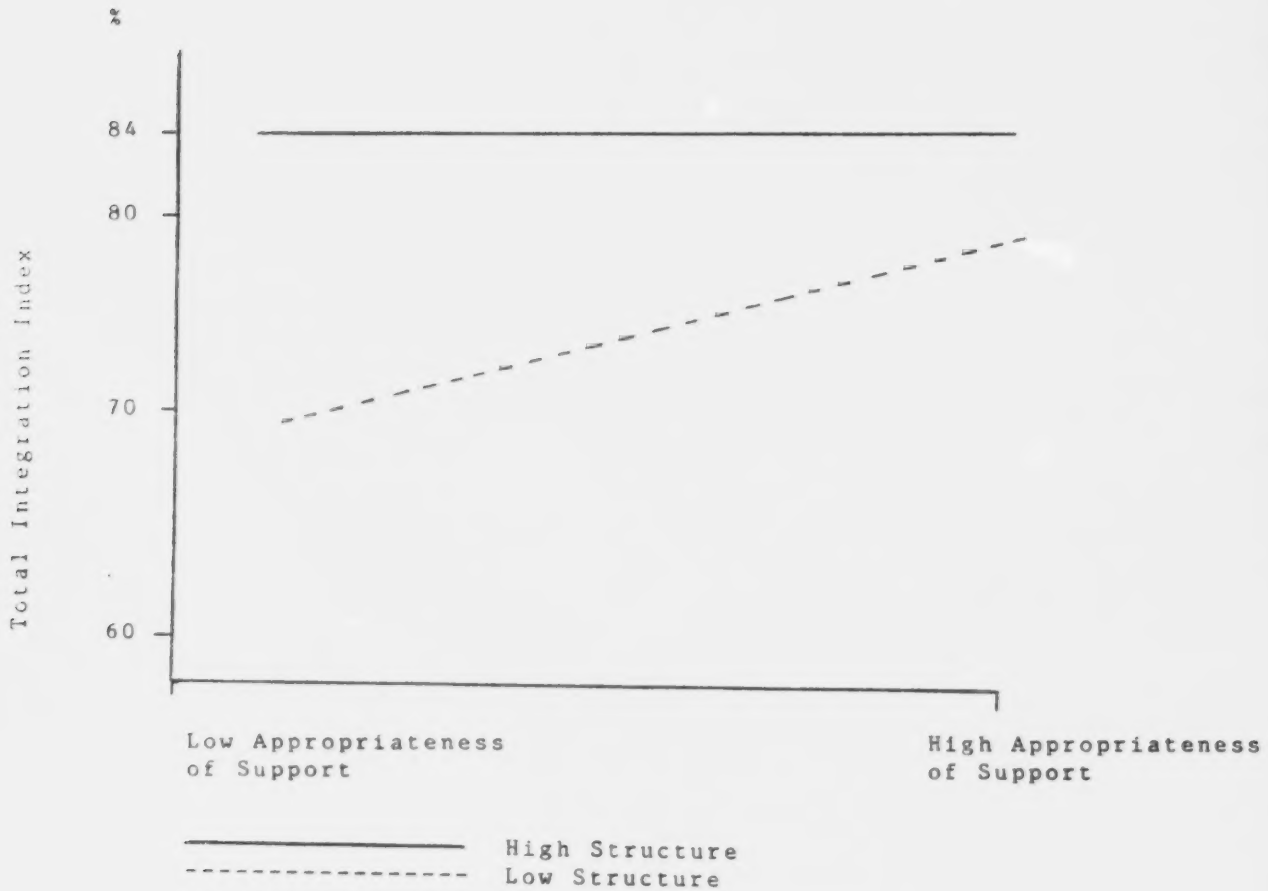
3) whether team teaching was used as a mode of operation so that assistance was not focused solely on the target student.

4) whether the form of support (teacher/aide) was appropriate to the child's needs.

In combination these two factors predicted about 26% of the variance for effective mainstreaming.

FIGURE 1

INSTRUCTIONAL STYLE & APPROPRIATENESS OF SUPPORT



From Figure 1 it can been clearly seen that teachers who employed a structured teaching style appeared to be more effective in mainstreaming children with disabilities than those who did not. However, in the absence of these techniques, a highly appropriate resource support was able to improve integration outcomes.

It can be seen, therefore, that the results of Stage 2 substantiate the tentative conclusions of Stage 1, with respect to the two factors most strongly predictive of effective mainstreaming. However, in the Stage 2 study a structured teaching style appears to be more closely related to the Index of Total Integration than does the appropriateness of resource support.** It is interesting to note that appropriateness of support is the variable most strongly associated with the Total Validation Index, indicating that satisfaction with integration placement appears to be directly related to satisfaction with the resources provided to assist in the process.

A third important variable associated with effective integration which has emerged from both stages of the study is general school ethos. This includes the degree of commitment of the principal and other staff to integration in general and to the mainstreaming of the target child in particular. In Stage 1, informal qualitative analysis of "successful cases" produced evidence of school commitment to integration, which was particularly important when either structured strategies or appropriate support were minimal. Consequently, in the Stage 2 study, each observer was asked to formally rate attitudes of other staff towards integration on a five-point Likert scale. This rating was based on the researchers' perceptions obtained from a variety of sources, including structured interviews with principal, class teacher, parents and support staff. Additional measures of attitudes towards integration were obtained for both the principal and class teacher by means of a questionnaire (see page 16). There was a significant positive correlation between the attitudes of principals, as measured by the survey instrument, and researchers' ratings of "other staff" attitudes, indicating a reasonable degree of commonality among members of each school community, dependent, perhaps, upon the leadership provided by the principal.

The results also indicated that staff attitudes were strongly correlated with both the Total Integration and the Validation Indices. This variable was not, however, included in the regression analysis as it was impossible to determine the direction of causality. It is probable that, in many cases, positive staff attitudes reflect, rather than determine, a successful

** The explanation for the change in the relative loadings of the two factors may be partly statistical, since the variability of structure in the Stage 2 sample was greater than in Stage 1 after the refinement of observational procedures. Moreover, the measurement of appropriateness of support, included not only researchers' ratings, as in Stage 1, but also those of teachers and principals.

mainstreaming situation.*** Case study data suggest, however, that, in some cases, a strong total school commitment has contributed greatly to the perceived success of the situation, suggesting that school ethos, as a variable, has both proactive and reactive effects (reciprocal causation).

In summary, therefore, the results of Stage 2 appear to confirm the hypotheses generated from the large-scale attitudinal surveys (Center et al, 1985; Center and Ward, 1987). When teachers are able to use appropriate instructional methods and when they have access to adequate resource support, they are able to effectively maintain children representing the whole range of sensory, physical, intellectual, multiple and learning disabilities within the mainstream. Although structured teaching strategies appear to be highly desirable for success, appropriateness of support appears to be equally necessary to promote positive attitudes towards mainstream placements. This is an important outcome, since it suggests that primary schools (and a limited sample of high schools) are more likely to tolerate academic and social diversity, for most disabled children in the mainstream, if appropriate resource staff are provided. It would seem, therefore, that if teachers have access to the requisite methods and are backed up by appropriately trained resource staff, integration will not only be more successful, but will also be seen to be more successful. Such a situation is likely to contribute to greater staff acceptance of integration which, in turn, is likely to enhance the success of future mainstream placements.

*** Indeed, in the Stage 2 study an analysis of teachers' and principals' attitudes towards individual disabilities indicated that there were no differences between the experimental group (who had largely successful experiences with integrated students) and a very large random sample of teachers and principals whose attitudes had been canvassed in earlier large-scale quantitative surveys.

SECTION II

STUDENTS WITH DISABILITIES IN MAINSTREAM CLASSES

SECTION II

1) STUDENTS WITH PHYSICAL DISABILITIES

The results of the Stage 1 study indicated that children with physical disabilities who were most "at risk" in the mainstream were those a) whose disabilities were of neurological origin with associated learning problems, and b) who were in primary rather than infants classes. Consequently, the Stage 2 sample included eighteen students of whom fifteen had cerebral palsy (CP) or spina bifida (SB) and all but one were in primary classes. The three remaining students had muscular dystrophy (MD), Praeder Willi Syndrome (PWS) or Soto's Syndrome (SS).

Table 3 shows the indices of integration for the Stage 2 group of physically disabled students. The results indicate that these children must be considered successfully integrated, with a mean Total Integration Index of over 80%, and a mean Validation Index of over 96%. There is, however, more variation within the Stage 2 group and mean Integration results are closer to marginality than was evident in Stage 1. Four of the students have Total Integration Scores significantly below the criterion for success (78%), whereas only one student was below criterion in Stage 1. It is noteworthy that three of the four are 6th grade students, which tends to confirm the hypothesis that children with physical disabilities of neurological origin are likely to encounter more academic and/or social problems as they reach the upper primary level.

When the Total Validation Index is taken into account, however, only one of these four students (Case 11) is considered as less than effectively mainstreamed. The remaining three (categorised as anomalies) have high Validation Indices, indicating that their schools are prepared to continue the placement, despite problems in either academic progress (Case 30) or social progress (Case 56), or even in both areas (Case 47). However, another student (Case 76), once again in an upper primary class, must be considered marginal in that serious doubts about the effectiveness of his placement are expressed (largely by his present teacher), despite the fact that he appears to be coping well academically and is not far below an acceptable level in the area of social integration. Thus, in only two cases among the eighteen students with physical disabilities does continued integration appear doubtful, despite the clear evidence of greater academic and social difficulties within this older and more disabled population.

TABLE 3

SUMMARY DATA FOR STUDENTS WITH PHYSICAL DISABILITIES

Case No.	Disab.	Grade	Acad. Index %	Social Index %	Total Integ. Index %	Valid. Index %	App. Supp.[1] %	Struc[2] %	Staff Att.[3] (1-5)
6	SB	5	93	87	90	100	87.5	85.0	5
11 *	CP	6	74	62	68	84	70.0	43.9	3
16	CP	4	65	94	80	100	95.0	83.3	3
20	CP	3	83	91	87	100	87.5	81.3	5
22	SB	3	94	86	90	100	57.5	99.5	3
30 o	CP	6	56	84	70	92	57.5	74.1	3
32	SB	3	78	88	83	100	100	65.7	4
40	MD	6	90	92	91	100	75	25.0	4
44	SB	5	81	83	82	100	75	32.2	2.5
45	SB	4	83	94	89	100	95	55.5	5
47 o	SB	3	69	71	70	100	75	46.3	4
53	CP	3	83	83	83	100	75	76.9	4
54	CP	5	93	72	82	92	95	73.8	3
56 o	CP/LV	6	79	62	71	100	75	56.5	5
58	SS	3	89	68	78	100	87.5	65.1	5
59	CP	5	85	86	85	92	95	54.2	3
75	CP	2	86	88	87	92	87.5	47.2	3
76 +	PWS	5	83	74	79	84	57.5	74.5	3
	MEAN (n=18)		81.3	81.4	81.4	96.4	80.4	63.3	3.8

* Less than effective + Marginal o Anomaly

[1] Appropriate Support [2] Structured Teaching Style [3] Staff Attitudes

While examination of Table 3 indicates that the fourteen successful cases had either access to structured teaching techniques, appropriate resource support, positive school ethos or some combination of these three factors, a closer examination of the five more problematic case studies reveals some interesting details. Case 11 involved a student in a metropolitan school with only a relatively minor physical problem (very mild cerebral palsy) but with more severe learning and social problems. Her teacher did not use many of the teaching or classroom management strategies that are generally considered to be most effective with children with these types of problems. Furthermore, the support provided was not judged by either school staff or researchers to be highly appropriate. This tended to take the form of withdrawal, rather than in-class support, generally considered to be more effective and less socially stigmatising for children at risk. Such a placement could not, therefore, be considered ideal for a child who manifested serious social and learning problems. These inadequacies were recognised most clearly by the child's parents who favoured placement in a special class for the following year.

The circumstances in the second case (Case 76), with a relatively low Validation Index, were quite different. Once again, the physical disability was relatively mild, involving poor co-ordination and general clumsiness. Furthermore, the student did not appear to have an intellectual disability. She was coping well academically and was also generally well accepted by her peers, despite occasional teasing. A problem in this placement appeared to be the teacher's attitude, since she did not consider mainstreaming to be appropriate for this child, believing more support and/or much smaller classes to be necessary before teachers could be expected to integrate such students.

However, the student's parents clearly believed integration to be the only appropriate placement for their daughter and were generally supported by the rest of the staff. The student, herself, was not happy with her current placement and wished to be in a parallel 5th grade. The low Validation Index, thus, reflects the negative attitudes of the class teacher and student, herself, but does <u>not</u> reflect a general belief that a student with these disabilities should be removed from an integrated classroom.

The remaining three case studies that displayed "anomalies" in terms of the quantitative data were all cases where continued placement was clearly recommended, despite some problems in either the social or academic areas. In Case 30, the student's learning problems were considerably more severe than his physical ones (very minimal cerebral palsy). Socially, however, this student was well accepted and his teacher appeared to consider his severe learning problems as a challenge, rather than a cause for rejection. A lack of appropriate resource support in this case study seemed to be adequately offset by a teacher whose style was relatively structured and who employed effective classroom management skills. Moreover, his very positive attitude to the target student was evidenced by the fact that he chose to have the student in his class for a second year (after a break of one year). Thus, despite severe learning problems, which clearly limited his participation in most classroom academic activities, this student's exemplary

behaviour and obvious social success made alternative support class placement unnecessary in the eyes of almost all school staff.

In the remaining two case studies, both displaying relatively low "success" rates in terms of their integration indices (Cases 47 and 56), the validation scores were 100%. In Case 47, the student had spina bifida and required a wheel chair. She also had associated learning problems, which meant she needed some modification of the 3rd grade level curriculum and a structured teaching approach, neither of which she was receiving. Moreover, despite an apparently high level of peer acceptance within the classroom, this student was relatively isolated in the playground. This appears to be more common with primary children in wheelchairs than within the infants department - particularly if their personality is either somewhat belligerent/demanding (as in the case of this student) or too withdrawn. However, despite these academic and social problems, few doubts about the suitability of the child's placement were raised within the school. The staff were beginning to address the need for a more appropriate academic program for this student to overcome her learning problems (exacerbated, to some extent, by frequent absences due to hospitalisation). Although the support provided (a part-time teacher's aide) was generally considered satisfactory by staff, an experienced integration teacher who could suggest appropriate curriculum modifications and provide strategies for keeping the student on-task, would probably also have improved the child's academic progress. This would, doubtless, have been more satisfactory to the child's parents as well, since they suspected a special school might have been a more advantageous placement for her.

The remaining case study (Case 56) involved another student with minimal cerebral palsy complicated by cortical blindness. Although generally ranked within the bottom group of the class in most academic areas, this student's progress was considered to be satisfactory due, in part, to her own high level of motivation. However, she had great difficulty with her peers because of poorly developed social skills. There was no question of an alternative placement for this student because her level of academic ability would make exclusion from the mainstream quite inappropriate. Nevertheless, concern was expressed about her impending transition from the supportive environment of her local, 2 teacher school to a large high school. It is possible that some specialist assistance may have helped this student to develop her social skills and thus, more easily overcome her isolation within the mainstream.

One final case study of a student with physical disabilities is worthy of discussion. This child (Case 75) had very severe cerebral palsy, no upper limb control and limited functional speech. In a metropolitan area, it is unlikely that such a student would be considered for full-time placement in the mainstream. Indeed, the student had previously attended a special school when living in Sydney. Following her family's move to a country area, with no such specialised facility, an alternative placement had to be considered. Since the local special school and support classes catered only for students with moderate to severe intellectual disabilities, they were considered unsuitable for a student with considerable academic potential, despite severe physical limitations. Hence, a decision was taken to place the student,

full-time, in a regular class. It must be noted that this placement, which was considered to be very successful by all concerned, was supported by a very high level of regional integration services: a full-time aide and a considerable amount of specialised equipment. In a metropolitan region, the cost of supporting such a student in the mainstream may be unjustifiable when an alternative placement in a special support class is available. In a country area, however, the provision of a segregated placement for one or two students would, no doubt, be less cost effective than providing sufficient support to maintain them in a regular class. This fact, however, sometimes needs to be made clear to school staff and the parents of other children who may view the obvious commitment of considerable resources to one child's education as unwarranted.

Summary

In conclusion, it would seem, from these eighteen case studies, that students with physical disabilities of neurological origin can be successfully maintained within mainstream classes even in the more competitive environment of upper primary classes, provided that structured teaching strategies are employed, appropriate resources are deployed and/or attitudes towards integration are favourable.

In these case studies, the provision of appropriate physical resources (such as ramps and modified toilets) was not an issue. However, children with neurological impairment often have academic, social and emotional difficulties in regular classes. Although these problems were rarely severe enough to warrant alternative placement, there was evidence of a degree of frustration, anxiety and isolation on the part of these students. Despite the fact that, for the most part, teachers of physically disabled children in regular primary classes were willing to maintain these students in the mainstream, a more exemplary integration situation could have been achieved by providing staff with the necessary expertise to modify curricula and improve social skills.

However, as was also found in Stage 1, the attitudes of teachers and executive staff towards the integration of children with physical disabilities appears to be extremely positive. Indeed, the fact that a number of students were below criteria in social/academic areas but were still considered to be appropriately placed (the anomalous group) bears testimony to this optimistic conclusion. To some extent, this positive attitude may be associated with the particular category of disability. It may also be related to the fact that support classes for the physically disabled are very sparsely spread across regions. Whatever the reasons for the desire of parents and teachers to keep these children within the mainstream, it is necessary to provide trained support personnel with specialist skills to ensure positive social and academic outcomes for these students in regular classes.

2) STUDENTS WITH INTELLECTUAL DISABILITIES

Twenty-three students with intellectual disabilities were included in Stage 2 - almost twice the number observed in Stage 1. Reflecting an intentional bias towards older students, the sample included only one student in an infants class, twenty in primary classes and two in high school (Grade 7). Approximately one third of the sample (eight students) had a moderate degree of intellectual disability, while another six students had a compounding problem in addition to a mild degree of intellectual disability. The relevant data for this group of students are shown in Table 4.

The overall rate of success of the enlarged Stage 2 sample was somewhat better than for Stage 1: 56.5% (thirteen) of students with intellectual disabilities appeared to be very effectively mainstreamed, while one further student (Case 37) was considered to be appropriately placed by all, despite a Total Integration Index that was somewhat below the cut-off of 78% (categorised as anomalous). For the remaining nine students (39%), integrated placement was more problematic and its continuation was being questioned. For this latter group, the mean Total Integration Index was only 68% and the mean Validation Index only 63%, which reduced the overall mean for children with intellectual disabilities to below the cut-off point for effective integration.

There is evidence from the Stage 2 data that the degree of effectiveness of a mainstream placement for students with intellectual disabilities is related to both the age of the child and the extent of severity of the disability. Thus, the overall "success" rate of the fifteen students in infants/lower primary classes was almost double that of the eight older students (73% compared with 37.5%). Similarly, the success rate for students with a moderate intellectual disability was under 40%, compared with over 70% for those with a mild intellectual disability. Moreover, students whose mild intellectual disability was compounded by an additional problem were also more likely to experience difficulty than those with a straight (mild) intellectual disability. Another interesting feature was the presence of only one anomalous result, suggesting that low academic/social progress was more directly related to a low Validation Index than was the case for students with physical difficulties.

TABLE 4 SUMMARY DATA FOR STUDENTS WITH INTELLECTUAL DISABILITIES

Case No.	Disab.	Grade	Acad. Index %	Social Index %	Total Integ. Index %	Valid. Index %	App. Supp. %	Struc. %	Staff Att.
1 *	Mod. I	3	49	86	67	68	45	64	3
4	Mod. I	3	69	92	81	100	95	86	5
5	Mild I	4	71	90	80	100	95	83	5
7	Mild I	4	89	71	83	100	95	97	5
15 *	Mild/LD	5	54	51	53	60	70	47.2	3
17	Mild I	3	83	92	88	100	95	43.5	5
21 *	Mild I	2	53	73	63	32	82.5	55.1	3
25	Mild I	7	90	91	90	100	82.5	93.8	1.5
35	Mild I	3	78	86	82	100	82.5	78.3	5
37 °	DS	3	64	81	72	92	95	77.8	5
39 *	Mild Ep	6	63	82	72	70	62.5	50	3
42 *	Mild BD	5	78	64	71	72	87.5	34.7	3
43	Mild/ED	4	71	85	78	92	70	61.1	3
46 *	Mod. I	4	75	72	73	80	82.5	N.A.	5
48 *	Mod. I	5	54	70	62	56	62.5	27.8	2
50 *	DS	7	81	69	75	72	45	70.6	1
52	Mild I	5	67	90	78	100	100	34.7	5
57	Mild I	6	76	88	82	100	100	81.3	5
64	DS	4	85	96	90	100	87.5	86	5
66 *	DS	3	79	72	76	56	82.5	63.9	2
77	Mild I	3	80	95	88	92	75.0	80.6	4
78	DS	3	86	69	78	92	62.5	73.1	2
86	Mild I	3	83	78	81	100	100	76.9	4
	MEAN (n = 23)		70.3	80.4	76.7	84.1	80.7	66.7	3.7

* Less than effective ° Anomaly

A more detailed examination of the case studies highlights the importance of the factors identified from the group data which contribute to the effectiveness of integrated placement for students with intellectual disabilities. For example, Cases 4, 5, 7, 25, 35, 57, 64, 77 and 86 all represent very effective placements - and even include two students with moderate intellectual disabilities and one with a mild disability at high school level. In each case, the teacher was using a highly structured approach to teaching and was receiving appropriate resource support. Moreover, apart from the one high school student, the principal and staff at these schools displayed a strongly positive attitude towards integration (all rated 4/5 on a 5 point Likert scale). Although Cases 17 and 52 appear to be somewhat contradictory in that their classroom teachers received a low "structure" score when the Total Integration Index was high, case study analysis provides an explanation. Both students received much of their basic academic program from experienced and trained support staff, rather than from the class teacher, so that the latter's teaching style was largely irrelevant for them. In addition to providing these students with a very high level of resource support, staff at these schools also displayed very positive attitudes towards integration.

As judged by the indices, Case 37 represents what appears to be the only anomalous situation in this group. While the Total Index of Integration falls below the hypothetical cut-off point for "effective" mainstreaming, the Total Validation Index remains high at 92%, indicating that there was almost complete agreement that this placement was appropriate. This case involved a 9 year old child with mosaic Down Syndrome, protein deficiency, poor vision and mild intellectual delay. The school he attended displayed a particularly strong commitment to integration, having enrolled a total of ten students with special needs (mostly prior to the introduction of the Department's Enrolment of Students with Disabilities Policy). Although the teacher had received no specialised training, she used a structured approach to teaching and was, moreover, very positive towards this child's placement. An adequate level of resource support (rated as 95%) was provided by an integration teacher who worked individually with the student for an hour each day. His program was planned jointly by the class teacher and the integration teacher, an arrangement which ensured maximum continuity and co-ordination. Despite this support, his academic progress was very slow and this is reflected in a low index of academic integration. In social terms, this placement appeared to be very successful and, despite the child's increasing academic problems, all considered it should continue. In this case, the commitment of the principal and staff to the concept of integration meant that this school was prepared to tolerate a considerable degree of academic diversity.

When the case studies of students whose placements are less effective are examined, the essential features appeared to be less exposure to structured forms of teaching, appropriate forms of resource support and positive staff attitudes. While the latter cannot always be assumed to be a causal factor (as the presence of a problematic integrated placement within the school can have a negative influence on attitudes), the results indicate that a lack

of commitment to the philosophy and practice of integration may be associated with an unsatisfactory outcome. For example, negative attitudes appear to have had a detrimental effect in Cases 50 (a high school student) and 66, where the placements were claimed by staff to be "failing" academically when, in fact, reasonable academic progress was being made (see Table 4), although it must be said that these students were not perceived to be well accepted by their peers. In one case (50), however, the student had a very close friend who was also intellectually disabled and was quite content in his company. His family were very satisfied with his progress in academic, social and emotional areas and, indeed, felt that he had gained greatly by having to "survive" in a non-supportive environment. The staff, however, were anxious about his lack of skills and his apparent rejection by his "normal" peers. The lack of appropriate resource support possibly contributed to the staff's negative attitudes.

In Case 66, part of the student's social problems could be associated with the playground rules at her school. More at ease in the company of younger children and somewhat intimidated by older, rougher children, she was frustrated by a rule which insisted that primary students play only in the designated primary area. Failure to observe this rule had led to a number of altercations with staff and a consequent detention which probably contributed to her rather negative attitude to school. She was also very dependent on 1:1 assistance in the classroom, although a program designed to fade out such assistance to increase her independence and, perhaps, also her social status in the classroom had not been considered.

Cases 1 and 48 (children with a moderate degree of intellectual disability) and, to a lesser extent, Cases 15, 21 and 39, illustrate the academic or social problems that appear to arise in the absence of appropriate resource support, highly structured teaching strategies and a staff highly committed to integration. In a number of these cases, the only support provided was an untrained integration aide to a teacher generally unskilled in individualised programming and curriculum modification. It is, perhaps, not surprising that attitudes towards integration of the intellectually disabled, particularly when they have a moderate degree of retardation and/or behavioural difficulties become ambivalent when teachers are faced daily with such stressful situations in the classroom. Furthermore, as the Validation Index in Case 21 clearly illustrates, unless the policy of integration is clearly enunciated and implemented with commitment, lack of progress in academic areas will lead to requests for alternative placement.

The relatively high proportion of outright "failures" among students with intellectual disabilities (representing 80% of all ineffective placement in the total sample) is a cause of some concern. There appears to be greater reluctance on the part of school staff to tolerate academic and social diversity for this group of students than for those who have physical disabilities, as can be seen by the greater number of anomalous cases for children in the latter group, compared with children with intellectual disabilities. This may reflect the greater availability of support classes (IM and IO) for children with intellectual disabilities

than for any other disability group. It may also indicate some negative stereotyping associated with the label of intellectual disability. Frequently, staff express anxiety that they are unable to provide an "appropriate" program for such students. The positive correlation between appropriateness of support and the Validation Index clearly suggests that if trained resource staff are available, school staff feel more confident to teach children with intellectual disabilities and are, therefore, more likely to believe that the placement is appropriate (see also Center et al, 1985, 1987; Thomas, 1985). Such an outcome emphasises the need for access to trained support staff and the importance of matching resources to the specific needs of the child and the teacher.

Summary

On the basis of these data, effective integration for a student with intellectual disabilities is more likely to be achieved if:

a) The student has a mild, rather than moderate, degree of intellectual disability;

b) if the student has no other obvious problems (physical, behavioural or social); and

c) if the student is in an infants or a lower primary grade, rather than upper primary or high school where degree of disability becomes increasingly important.

However, very effective integration placements can be achieved even for students who do not fit these criteria if:

a) the teacher uses a structured approach to teaching (see page 18-19);

b) appropriate resource support is provided: this, generally, implies a trained support or integration teacher who can assist the teacher to make appropriate modifications to the curricula, to develop effective teaching strategies to increase the students' time-on-task and to improve social skills;

c) the teacher believes he/she has access to enough expertise to be committed to the placement of the student within the mainstream; and

d) the principal and other staff members also display a high level of commitment, a tolerance of academic and social diversity, and provide positive support to both the teacher and student.

3) STUDENTS WITH MULTIPLE DISABILITIES

Seven children with multiple disabilities were also involved in Stage 2, compared with only three in Stage 1. The extended sample included two children with spina bifida (SB) (Cases 19 and 23) and one with cerebral palsy (CP) (Case 41), all of whom also had a mild intellectual disability. These children were different in degree, rather than kind, from those in the "physical with learning problems" group and, to some extent, their classification as "multiple" was somewhat arbitrary. A fourth child (Case 8) with mild cerebral palsy, also had a moderate bilateral hearing loss and a mild intellectual disability.

The three remaining children had a range of disabilities: one (Case 38) was classified as legally blind, together with learning and social/behavioural problems. The second (Case 18) was recovering from severe head injuries sustained in a car accident. The third (Case 36) had chronic renal failure and had recently undergone a kidney transplant. Her medical problems resulted in her being physically small and fragile and her estimated IQ was in the moderate range of intellectual disability. The descriptive data for these children can be seen in the following table.

TABLE 5 SUMMARY DATA FOR STUDENTS WITH MULTIPLE DISABILITIES

Case No.	Disab.	Grade	Acad. Index %	Social Index. %	Total Integ. Index %	Valid. Index %	App. Supp. %	Struct. %	Staff Att. (1-5)
8	CP/HI/ Mild I	1	78	83	81	100	87.5	76.4	5
18	Head Inj.	6	97	88	93	100	100	87.5	4
19	SB/Mild Intell.	6	99	84	87	100	82.5	75.9	5
23 *	SB/Mild Intell.	3	78	79	78	64	57.5	94.4	3
36	Med/ Mod. I	2	73	93	83	100	57.5	88.3	5
38 *	Blind/LD	4	81	66	73	88	62.5	34.2	2
41	CP/Mild Intell.	3	86	76	81	100	50.0	34.7	5
	MEAN (n = 7)		83.3	81.3	82.3	92	71.1	70.2	4.0

* Less than satisfactory integration

As can be seen from Table 5, this group of children appears to be considerably more successfully integrated than was the case with the corresponding sample in Stage 1. The mean Total Integration Index for this group is 82.3% - substantially higher than that for students in Stage 1 (see Table 2) and somewhat higher than that for children with intellectual disabilities. These results suggest that it is not the disability, per se, that determines their successful integration (as was hypothesised in Stage 1) but, rather, a combination of classroom and school factors. As can be seen from Table 5, the most successful cases were characterised by a high degree of structured teaching, appropriate support and commitment to integration, while the distinguishing factors of the two less successful cases were a combination of ineffective support and less positive staff attitudes. There continues to be a generally positive correlation between the use of structured teaching approaches and a high Total Integration Index, while the Validation Index seems to be more responsive to staff attitudes.

The factor which appears to be most strongly associated with the success of these placements is the degree of commitment of the school to integration. In the four cases where this was rated 5 on a 5-point Likert scale, a Validation Index of 100% was recorded (see Table 5). Although it may be argued that such an attitude may be an outcome rather than a causal factor in relation to successful integration, these four individual case histories indicate the existence of a strong philosophical commitment which is independent of the successful integration of the target child. In three of these schools (Cases 83, 19 and 36), this commitment was clearly demonstrated by the enrolment of a significant number of other students with disabilities. In the fourth school (Case 41) - a one-teacher school - the strength of the teacher's commitment to the student's placement was clearly evident from the interview data.

In Case 18, there was also a high level of commitment but it appeared to be directed more towards the integration of the particular child, than to integration in general. The child involved was a student at the school who was involved in a serious car accident which left him in a coma for some 6 weeks, two-thirds of the way through 6th grade. The school staff had all willingly co-operated to facilitate his successful re-integration into the school (initially on a part-time basis and then full-time). Comments from some members of staff, however, suggested that the same readiness to support this placement may not have been evident if the target child had not already been a part of that school community.

The critical role of that school commitment is particularly well illustrated in Case 19. This student had been enrolled in his local primary school from first grade, following a ministerial directive to the region. When observed in Stage 1, this placement was clearly not working effectively. The child was then in 6th grade and, since anxiety was being expressed by the parents about a suitable high school placement, a regional decision was made to keep the student for another year in primary school. However, his existing school was not prepared to allow him to repeat,

particularly as there was only one class per grade. He was, therefore, enrolled in a larger local school whose principal was supportive of integration and where three other children with disabilities were already effectively integrated. In Stage 2, this student was functioning very well and happily within his new school. All staff at that school and his parents were delighted with his progress both academically and socially. Clearly, this student was benefiting from his placement in a small, lower-stream class, with a competent and caring teacher. In addition, the teacher's aide was being used much more appropriately in this second placement since she worked as an assistant to the teacher with a small group rather than in the 1:1 role that had been employed in the student's previous classroom. However, the most significant factor in this success appears to be the very positive commitment of his new school to integration. This was clearly demonstrated by the interest of the principal in sending a delegation to a conference on integration and the initiating of a written evaluation of the school's integration program to which all involved staff contributed.

The critical role of school attitudes in effective integration is also clearly exemplified in the two least successful cases. In Case 23, a wheelchair-dependent child, it had taken over twelve months from the time the child commenced school to obtain the necessary ramps and toilet facilities for the student, and the process of "negotiation" for such facilities had to be repeated when the child moved from the separate infants department to the primary at the beginning of 1988. In Case 38, the level of the child's disability was not fully realised until after her enrolment, at which time the Principal began intensive lobbying for assistance. In both these schools there were a number of children enrolled under the Enrolment of Children with Disabilities Policy, which appeared to be the result of circumstances, rather than the desire of the school staff. For example, in Case 38, the school, which is new, was selected by the Department as the most suitable for children with physical disabilities because of its level terrain and lack of steps. In Case 23, the provision of wheelchair and toilet facilities for the first student enrolled had made it difficult for the school to refuse subsequent enrolments of children in wheelchairs (now totalling four). Interview data indicates such schools may feel that they are being used as a "dumping ground" for all physically disabled students in their area. The additional administrative burden imposed by the enrolment of a number of students with special needs (both schools also have support classes on site) can lead to feelings of frustration and resentment if adequate recognition and support is not forthcoming from the Department.

Although the Total Integration Index for these two students was just at criterion and slightly below the acceptable cut-off point, they were still well within the range tolerated by many other schools in the overall sample. Moreover, neither student appeared to be presenting problems in the academic area. Nevertheless, staff were not satisfied with the kind or amount of support being provided, and this dissatisfaction may have reinforced their less positive views of integration in general. Once again, however, they may have been reacting to the label of multiple disability, as was hypothesised in the case of children with intellectual

disabilities, since no child with multiple difficulties received an anomalous rating. Furthermore, the presence of support classes on site may also have reduced their commitment to integration since research has indicated that principals and teachers in schools with support classes have less tolerance towards mainstreaming then those without (Center et al, 1985; Center and Ward, 1987).

Summary

In conclusion, these case studies of children with multiple disabilities present a much more optimistic picture than emerged from those observed in Stage 1. It would seem, from these data, that children with a multiplicity of disabilities can be successfully integrated into regular schools. The key factors in making such placements work appear to be a strong commitment to integration on the part of the school and a willingness to tolerate diversity in the student population. The provision of adequate and appropriate resource provision, as well as consultation prior to placement, still remains vital, particularly in schools where teachers themselves do not have confidence in their skills to integrate such children, and where commitment to integration is not quite so strongly evident.

4) STUDENTS WITH LEARNING DISABILITIES

The inclusion of a small group of students with mild-severe learning difficulties was a new component of Stage 2. All five of these students had previously participated in an intensive withdrawal program located at the Macquarie University Special Education Centre. In general terms, the criteria for entry into this Program, following a request from a child's regular school, are an IQ within the "normal" range and a reading and/or maths level at least two years below grade level. Two of the children (Cases 12 and 14) were referred to the infants classroom at the Special Education Centre, at approximately age 7-8, while the other three were not referred to the Centre until primary level, when they were aged 9 or 10.

During their period in the Special School, which involved structured group and individualised instruction and which lasted six months for four of the students and one year for the fifth student (Case 13), they continued to attend their own school one day per week to maintain contact with their "home" class.

Table 6 shows the descriptive data for the sample of children with learning difficulties.

TABLE 6

SUMMARY DATA FOR STUDENTS WITH LEARNING DISABILITIES

Case No.	Grade	Acad. Index %	Social Index %	Total Integ. Index %	Valid. Index %	App. Supp. %	Struct. %	Staff Att. (1-5)
10	5 (P)	82	96	89	92	57.5	91.2	5
12	4 (I)	92	92	92	100	N.A.	73.1	2
13 [o]	4 (P)	74	79	76	92	N.A.	57.2	3
14	3 (I)	89	91	90	100	75	77.8	3
31 [o]	6 (P)	86	88	87	72	62.5	86.7	3
	MEAN (n = 5)	84..6	89.2	86.8	91	65.0	77.2	3.2

[o] Anomaly

The results indicate that, at the time of observation, all five students appeared to have been successfully re-integrated into their own school (refer Table 6), although in at least two cases

(13 and 31) which have been categorised as anomalous, there still appeared to be some residual problems.

Probably the most successful student (Case 14) was a third grade child who had spent just over 6 months at the Special Education Centre during 2nd grade. She had previously attended a special hospital school in another country. This child, who was a premature baby, had severe co-ordination and behaviour problems and virtually no formal academic skills at the time of entry to the Centre classroom. Six months later, on her exit from the Centre, her performance on tests of reading accuracy and comprehension was above her chronological age, and her maths scores were at an average level. Her reading skills have continued to develop satisfactorily since being placed in a regular class with a teacher using a structured teaching style. Although she is in the bottom maths group, she is functioning well within the class range. As a member of this lower-ability group, she is receiving some in-class assistance twice weekly from the support teacher, which is considered to be most appropriate. It is evident, therefore, that even a child showing such severe delay can be successfully maintained within a regular class after intensive remediation and with appropriate classroom management. Thus, it appears that Case 14, initially diagnosed as having a "learning disability" may, in fact, have been <u>educationally</u> disadvantaged rather than possessing an inherent long-term disability.

The early educational histories of Cases 10 and 12, also re-integrated successfully into the mainstream, were similar to that of Case 14. Such children appear to benefit greatly from an intensive "catch up" program like the one provided by the Special Education Centre. These three children improved on average by some two years in their levels of reading accuracy, comprehension and maths competency over their six months in the Centre - and have continued to make good progress since returning to a regular class with only minimal (and, in one case, no) additional support.

The other two students (Cases 13 and 31), whose learning disabilities appear to be more pervasive and long-term, made less dramatic but still significant progress during their 6-12 months in the Centre, improving their basic skill levels by approximately one year. While clearly benefiting from the highly structured, individualised tuition available in the small Centre classrooms, these students have failed to maintain the same steady rate of progress in a regular class.

One of the students with difficulties (Case 13) was receiving no resource support (considered necessary by his teacher) since there was no support teacher at his high-achieving school. This situation resulted in a relatively low index of academic integration for this student and was compounded by the fact that his teacher did not employ a highly structured style of teaching. This child, who had been made to repeat, was also experiencing problems with his peers due to poor social skills and a depressed level of self-esteem.

Despite this less than ideal situation, there was no question about the child's present and continued placement within the mainstream (Validation Index of 92%). This reflects the fact that, provided

the child's IQ is within the normal range, there is, generally, no alternative placement as children with learning disabilities are considered to be the responsibility of the regular teacher. The problem of providing appropriate resource support to a single underachieving child in a school with a generally high academic level needs to be addressed. Failure to act may result in the child's falling further behind academically, with its attendant social problems.

The other student (Case 31) experiencing problems in re-integration was a 6th grade student with very severe learning disabilities who spent nearly half the week in a remedial 5th/6th class. This support was helping him to progress adequately in academic areas but both the school staff and family felt that he would be better placed in a special class when he proceeded to high school. This view was reflected in a relatively low Validation Index (72%), despite a satisfactorily high Index of Total Integration in his remedial class. It would appear that such students, if they are to maintain academic progress, need continuing, specialised teaching and resource support of a kind rarely available in a regular class. Without such specialised support, it is likely that they will drop further behind their peers and may experience academic and social frustration. This is frequently reported in follow-up studies of children who have received remedial instruction in specialised facilities (Ward, Bochner, et al, 1987).

Summary

The results for the sample of children with learning difficulties have some implications for both selection of children for remedial services and for their re-integration into the mainstream, although any conclusions can only be regarded as tentative.

It appears that for those children whose early history indicates some educational deprivation, be it through illness, frequent school change or unstructured teaching, an intensive structured remedial intervention program such as that provided by the Special Education Centre at Macquarie University serves to establish the pre-requisite academic/social skills for successful re-integration into the mainstream. It also appears that for these children, continued specialised support will probably not be necessary (or need be only minimal) in regular classes once the gap between them and their peers has been closed.

However, for those children whose academic difficulties appear to be associated with a real learning difficulty, the structured intervention which they receive in a special class/school must be maintained in a systematic way upon re-entry into the regular class. If appropriate resources are not deployed, these children will, once again, fall behind their regular peers and display the characteristics which originally earmarked them for special class/school assistance. Finally, the results appear to indicate that, when difficulties are observed and remediated at the infants rather than at the primary level, there will be a greater opportunity for successful integration within the mainstream.

5) CHILDREN WITH SENSORY DISABILITIES

As the Stage 1 study had indicated that the sample of children with sensory disabilities were all effectively mainstreamed in primary classes, only sensory disabled students mainstreamed in secondary schools were included in Stage 2. Of the sixteen students observed, nine had visual disabilities while seven had some degree of hearing impairment. Sensory disabilities ranged from low vision through to total blindness and the range of hearing disability was from a mild to a profound loss. Students were selected predominantly from Year 7 or Year 10 to measure the success of integration, both upon entering high school and as they approached their last two years of secondary schooling. The exceptions were two students in Year 11 who were replacements for the two originally selected from Year 10 classes. Descriptive data for this sample of students is provided in Table 7.

The results of Table 7 indicate that only one student (Case 60) could be considered unsuccessfully integrated while three further cases (Cases 51, 74 and 83), whose Integration Indices were low but whose Validation Indices were high, were categorised as anomalous. These results contrast quite vividly with those of the Stage 1 study where all the primary students with sensory disabilities had Integration and Validation indices well above the nominal cut-off point for success. However, viewed as a group, the mean indices suggest that, of all the disability groups studied, these are still the most successful students in the mainstream.

The factor that appears to be most closely associated with successful integration for this group of students is positive staff attitudes towards integration, in addition to appropriate resource support, both of which are pleasingly high in the more difficult and diverse environment of a high school. While data in Table 7 suggest that the structured teaching style of the teachers sampled appears to be markedly lower than that found among teachers in primary school, it is a much more problematic variable to measure in high schools, and has less direct relevance to students' success.

An analysis of the case study of the unsuccessful student (Case 60) indicates that a number of personal factors such as low self-esteem, lack of motivation and unappealing physical characteristics were more closely associated with failure than was her hearing loss. Other students with hearing impairment in the class were successfully integrated, as were younger hearing impaired students in the school. Teachers were frustrated by the student's unwillingness to attempt classwork, which was probably related to her borderline intellectual disability. Furthermore, her peers in the class were reluctant to work with the student because of her refusal to complete work and because of her unattractive physical attributes. However, other students with a hearing loss and no perceived personal anomalies in the class were accepted as part of the class's social structure. The failure of the integration from both social and academic perspectives, therefore, cannot be entirely attributed to the student's sensory disability.

TABLE 7

SUMMARY DATA FOR STUDENTS WITH SENSORY DISABILITIES

Case No.	Disab.	Grade	Acad. Index %	Social. Index %	Total Integ. Index %	Valid. Index %	App. Supp. %	Struc. %	Staff Att. (1-5)
24	Vis Imp	7	100	94	97	92	95	68.5	5
28	Vis Imp	8	98	83	91	100	100	37.0	5
51 °	Hear Imp	7	85	58	72	92	87.5	79.6	3
60 *	Hear Imp	10	72	60	66	68	50	64.4	2
61	Vis Imp	10	96	89	93	92	100	29.9	5
63	Vis Imp	7	88	81	84	88	75	32.3	4
74 °	Vis Imp	11	71	63	67	92	95	6.5	1.5
79	Vis Imp	10	99	83	91	92	100	52.8	4
80	Vis Imp	7	85	76	81	92	82.5	33.3	4
81	Hear Imp	10	91	87	89	100	95	24.1	5
82	Vis Imp	7	94	82	88	92	95	29.6	5
83 °	Vis Imp	7	73	71	72	92	60	57.4	3.5
84	Hear Imp	11	100	97	99	100	100	51.9	5
85	Vis Imp	10	99	95	97	100	N.A.	60.2	5
87	Hear Imp	7	90	79	85	92	85	66.7	5
88	Hear Imp	10	87	89	88	92	50	55.6	4
	MEAN (n = 16)		89.3	80.4	85.0	92.3	84.7	46.9	4.1

° Anomaly

* Less than effective integration

In the three cases of partially successful integration, confounding factors, not directly related to the disability, can again be identified. In Case 51, the student was in Year 7, having spent the previous year in a support unit for hearing impaired students as a transition from primary to secondary school. This transition year had separated the student from her primary peer group and resulted in her entering a high school with very few friends. The absence of supportive peers became a matter of great concern to the

student on entering a new school since she was placed in a difficult class. While the student was capable academically, it was her poor social relationships which primarily accounted for the low Total Integration Index. Although the principal saw the integration as being successful, her teachers were more ambivalent, with one teacher being completely unaware that the student had a hearing loss. Her parents were very supportive and had insisted that she be placed in a regular school, rather than a support unit. They had also approached teachers at the school seeking assistance in fostering social interactions within the classroom. The inability of teachers and support staff to address this vital issue highlights the problems that can occur at the high school level where good communications between many varied people are essential for the successful integration of a disabled student.

A second student, this time in Year 11 (Case 74), could also be considered as only marginally successfully integrated at the time of the study. This student had wanted to leave school at the end of Year 10, but was refused permission by an ambitious parent. Her consequent lack of motivation, both in academic and social areas resulted in a low Total Integration Index. As a result of the student's performance, teachers had expressed reluctance to accept further students with such disabilities into the school, without realising that family characteristics were compounding the difficulties arising from the sensory loss.

The final partially successful case (Case 83) was a boy in Year 7 with low vision. A major contributing factor was the placement of the boy in the lowest ability class in which there was a very large proportion of students with severe learning and behaviour problems, creating a very disruptive environment. The student was tolerated by the other students and appeared to have developed his own social coping strategies to minimise his atypicality. The only successful teacher with this class was a primary trained teacher who was highly organised with clear objectives, and who had no discipline problems. The target student's low Integration Index would appear to be the result of inappropriate placement and management, rather than a direct correlate of his disability. It is interesting to note that, with regard to the three cases categorised as anomalous, their teachers favoured continued mainstreaming, despite low academic and social outcomes. In contrast to other groups of students in this study who were rated as anomalous, this could not be attributed to strongly positive attitudes towards integration on the part of their teachers (see Table 7). It seems, at the high school level, that teachers were reacting specifically to individual students, rather than to integration for disabled children in general performance and, despite a certain amount of disenchantment with their students' achievement, still believed that mainstreaming was a legitimate option for students with sensory disabilities.

Summary

The data indicate that high school students with sensory disabilities were generally extremely well integrated into the mainstream, although the Integration and Validation Indices were lower for secondary students than for primary students in Stage 1.

At the secondary level successful students with sensory impairment were highly motivated and keen to be regarded as part of the regular school. Furthermore, success did not seem to be associated with type of sensory impairment (hearing or visual), degree of disability (mild or moderate) or area of schooling (metropolitan versus rural). Rather, it appeared to be the cognitive and affective characteristics of the students and the classroom ecology which affected the quality of their integration. For example, students of high ability, placed in upper stream classes (eg. Case 28), were extremely successful, both academically and socially. However, very often students with sensory impairment were placed in lower stream classes with students who had learning and/or behavioural problems. Social acceptance in these classes appeared to be more difficult to achieve for students with sensory disabilities, although the reasons given for rejection by other students were often to do with unattractive physical attributes (eg. obesity), rather than the presenting disability. It would, thus, seem that when sensory impairment is compounded by some other cognitive or affective problem, social acceptance in these classes requires skilled management on the part of all relevant teachers. In view of this need and the overall low structure scores for the sample of high school teachers (46.9% compared with 70.2% in primary classes) it is critical that all teachers have access to skilled itinerant support staff who can provide them with strategies in the classroom for both academic and social success.

An interesting aspect of the study was the wide variability in the attitude of class teachers towards the major support service for students with sensory disabilities, itinerant teachers. In some cases, particularly where the itinerant teacher was based in the school, they were regarded as a major asset. Some class teachers thought, however, that the itinerant service was too limited to be of real assistance. Interestingly, the withdrawal of integrated students for assistance, whilst welcomed by class teachers, was not favoured by integrated students, many of whom preferred to rely on classmates for help, rather than be stigmatised by such assistance. It is also more difficult for support staff to assist regular students when they do not observe them in their home classrooms.

In contrast, some itinerant teachers complained of class teachers not implementing advice on strategies to be used with students who had a sensory disability. Itinerant teachers often felt that they had insufficient time to fully meet the needs of students and had additional difficulties when confronted with casual teachers who were unaware of the itinerant teacher's role. Furthermore, itinerant teachers often found difficulties assisting students in higher grades due to the complexity of subject content.

In summary, although the case studies generally detail successful experiences, a few problem areas still need to be addressed. In the first place, there needs to be greater communication between all those involved in the education of the student with sensory disabilities at high school - student, parent, classroom teachers, teachers in the playground and the itinerant support. Parents must be able to communicate their wishes and supply vital background information, while the student must also be able to voice his desires with regards to assistance. There also needs to be a greater liaison between itinerant support and classroom teachers,

particularly in the higher years and the whole question of withdrawal as the most efficient form of assistance needs to be investigated. If students wish to avoid the stigmatisation of withdrawal, if teachers feel the service is limited and support staff do not feel their advice is being implemented, then the current method of assistance warrants further investigation. Perhaps, a named person, as suggested by the Warnock Report (1978), could become the student's advocate within the school and co-ordinate the student's total school program.

SECTION III

THE INTEGRATION OF STUDENTS WITH DISABILITIES WHO ARE ATTENDING ISOLATED SCHOOLS

SECTION III

THE INTEGRATION OF CHILDREN WITH DISABILITIES WHO ARE ATTENDING ISOLATED SCHOOLS

1) INTRODUCTION

For schools in remote rural areas of New South Wales, problems of distance and isolation influence the provision of education services. For children with disabilities who need additional specialised support services in the form of personnel or building modifications, the sparse population makes the provision of these services especially expensive, even when appropriate staff can be deployed.

This is especially true for isolated children with low incidence disabilities where insufficient numbers exist either in individual schools or districts to warrant the establishment of support units. As a result, in some country regions, a greater number of children with disabilities may be attending regular classes than would be predicted from known data regarding incidence. Schools have responded to this situation by attempting to cope with the resultant difficulties, in some cases, by establishing withdrawal groups for parts of the school day. In rural areas, therefore, the costs of assisting the integration of children with disabilities in regular schools may be anticipated to be greater than in the more densely populated centres.

2) THE SAMPLE

Seven students with disabilities who were attending isolated schools in the western region were included in the study; three with physical disabilities, three with intellectual disabilities and one with multiple disabilities. Descriptive data for these children is presented in Table 8.

The integration of these children, as a group, could be considered to be marginally effective, with a mean Total Integration Index of 76% and a mean Validation Index of just under 85% (a result comparable to children with intellectual disabilities). The pattern within the group reflects that of the sample as a whole. Students with physical disabilities were generally more effectively integrated than those with intellectual disabilities and, even when indices of academic and social progress were below the general criteria for effective mainstreaming (as in Case 47), the placement was considered quite appropriate by all involved.

TABLE 8

SUMMARY DATA FOR CHILDREN ATTENDING ISOLATED SCHOOLS

Case No.	Disab.	Grade	Acad. Index %	Social. Index %	Total Index %	Valid. Index %	App. Supp. %	Teaching Style %	Staff Att.
47 °	SB	3	69	71	70	100	75	46.3	4
40	Mult. Dis.	6	90	92	91	100	75	25.0	4
58	Soto's Synd	3	89	68	78	100	87.5	65.1	5
42 *	Mild IH /BD	5	78	64	71	72	87.5	34.7	3
46 *	Mod IH	4	75	72	73	80	82.5	N.A.	5
48 *	Mod IH	5	54	70	62	56	62.5	27.8	2
41	CP/ Mild IH	3	86	76	81	100	50	34.7	5
	MEAN (N=7)		78.7	73.7	76	84.7	74.2	37.5	4

* Less than effective mainstreaming

° anomaly

The one child in the sample who was classified as having multiple disabilities (Case 40) was also very effectively mainstreamed, despite some concern over a lack of access to professional expertise. The educational and social needs of this child, who had cerebral palsy and a mild intellectual disability, were being well catered for by a very committed teacher in a single teacher school. As all the children in the small (kindergarten to 6) class worked on individual programs in basic academic areas and all were assisted, when necessary, by the teacher or teacher's aide, there was no undue stigmatisation of the target child. The latter had his own computer, provided by integration funding, and was able to work independently at his own level (some 2-3 years below his grade level). Although this placement was proceeding satisfactorily at present, concern was expressed by the teacher, the child's parents and the observer at the very limited access to specialist services (eg. physiotherapy, speech therapy and special education) because

of the isolation of the town. Improved access to such services may be necessary to ensure the student's continued good progress.

The three students with intellectual disabilities appear to have encountered more problems than those with physical disabilities. In each case, both the Total Integration and Validation Indices were below the criterion level set for effective mainstreaming, despite relatively high levels of appropriate support in two of the cases (42 and 46). However, teacher strategies for this group were noticeably unstructured and staff commitment to integration in the two least well integrated students was not high.

As two of the three critical variables for success were absent, it is not perhaps surprising that these children were not successfully mainstreamed. Two of these students (Cases 46 and 48) had moderate intellectual disabilities; the third (Case 42), while classified as having an intellectual disability in the mild range, also exhibited severe behaviour problems which were interfering with his education. It is probable that these students, if living within the metropolitan region, would, most likely, have been placed in a support class, since their needs may have exceeded the services provided to regular classes. In the non-metropolitan sample, the proportion of students with more complex disabilities (moderate, rather than mild intellectual disabilities, or mild intellectual plus another problem) was almost double that found in the metropolitan sample (81.8% compared with 44.4%).

The problem of students with complex difficulties has been addressed in a number of ways in isolated rural areas. In Case 42, the large number of children with severe learning and/or behaviour problems in the school had led to the establishment of a resource room model. The criteria for placement were "severe difficulties within the academic, social and emotional areas of schooling" as assessed by the support teacher (learning difficulties). The target student was considered to be top priority in all three of these areas. The students spent the morning sessions in this environment, which was highly structured, and returned to their home classes after lunch. This system had only been in operation for ten weeks at the time of observation but it was seen as an interim measure to bring the students under control, both behaviourally and academically, and one that, in time, would lead to re-integration within the regular classes.

In Case 48, the target student spent the major part of each morning with the support teacher (LD) in a small withdrawal room adjacent to her own classroom. Here she received intensive instruction in maths, reading and language, generally with a small group of other children. Aged eleven, this student was functioning at only a kindergarten/early 1st grade level but was responding very well to the small group situation established early in 1988. Within this placement, she appeared relaxed and happy, and willing to participate in verbal interactions. This behaviour was in complete contrast to her extremely withdrawn behaviour in the large regular class (34 students). It was, therefore, felt that she would clearly benefit from inclusion in an IO class proposed for the school for 1989, and this attitude is reflected in the very low Validation Index for this student.

Case 46 involved a student at an isolated central school which had also responded creatively to the many social and academic problems evident among its (largely Aboriginal) school population. The school was organised into four units, encompassing grades kindergarten-3, 4-5, 6-7 and 8-10 respectively, each of which had three ability groupings in the language and maths/investigation areas to cater for the very wide range of abilities within the school. No students within this school had been enrolled specifically under the Enrolment of Students with Disabilities Policy and, in reality, there was no alternative for them. The target student was placed in a small remedial group for both maths (ten students) and language (eight students) within Unit 2.

One teacher took the group for language and two (different) teachers, for maths. There were many behaviour problems within the groups which probably exacerbated the target child's off-task behaviour. Assistance, in the form of half-hour withdrawal once daily, was provided by a teacher's aide (shared among seven students) and the support teacher (LD) who initially had assisted in developing appropriate programs. To ensure continuity of the much needed special education support in a school which was generally subjected to a high staff turnover, the role of co-ordinating and overseeing all the special education programs was given to the school librarian, who was a long-term resident and, therefore, had established her credibility in both the school and the community.

Summary

In summary, the mainstreaming of students with disabilities in isolated school communities presents some unique problems. These are related to:

a) the necessity of mainstreaming students with more severe disabilities because of a lack of suitable alternatives;

b) difficulties of access to appropriate professional services (especially therapists, medical specialists and, sometimes, staff with special education expertise);

c) high staff turnover; and

d) a high incidence of social and learning problems associated with socially disadvantaged communities.

The schools sampled in this study had often responded innovatively to these particular problems and were endeavouring to meet the particular needs of the target students under difficult conditions. The special needs of these isolated schools for access to suitably trained teachers and adequate and appropriate resources to cater for the many pupils with a variety of disabilities must be recognised and ongoing support ensured.

SECTION IV

SUPPORT CLASSES

SECTION IV

SUPPORT CLASSES

INTRODUCTION

An important element in the integration policy of the NSW Department of Education has been the provision of "support" classes within regular schools. These provide alternative placement options for students whose special needs cannot be met satisfactorily within the regular class. A Departmental statement on integration (Winder, 1988) describes the advantages of such an option, which allows students with disabilities to "receive appropriate educational support while experiencing the daily activities of their local community peer group".

At the Department's request, a sample of 20 children in support classes was included in the second stage of this study in order to identify effective practice and organisation for such a class. This sample contained:

5 students in P classes (for students with physical disabilities);

5 students in IM classes (for students with mild intellectual disabilities); and

10 students in IO classes (for students with moderate intellectual disabilities.

The total number of support classes and the sample are shown in Table 9.

TABLE 9

NSW PRIMARY SUPPORT CLASSES

1988 TOTAL

	METROP		COUNTRY		TOTAL	
	All	Sample	All	Sample	All	Sample
P classes	4	4 *	1	1	5	5
IM classes	89	3	90	2	179	5
IO classes	31	4	26	6	57	10
					241	20

* This represents only 3 schools as 2 children attended the same school.

As observations in support classes were a new component, some additional development and adaptation of the instrumentation was found to be necessary. Whereas, in the case of students with disabilities in mainstream classes, the child was the unit of analysis, in support classes the focus was on both the child and on the support class itself. Thus, as well as observations of the target students (selected randomly), the roles of the support classes and teachers within the regular school were also examined.

Accordingly, a questionnaire was developed for support class teachers which differed in a number of respects from that given to teachers in regular classes. In particular, information was sought on the role and responsibilities of the support class teacher within the regular school, the degree and forms of support provided to the teacher by the school executive and the degree of participation by the class, as a whole, in the wider activities of the school. A second teacher questionnaire was designed to determine the extent, variety, duration and perceived effectiveness of the participation by both the target child and other members of the support class in integrated activities. Questions concerning the role of support classes and advantages/disadvantages with regard to special schools were included for discussion in interviews with principals, support class teachers and parents.

Wherever possible, the same measures were used to collect data on the target children in the support class as were used in the children in mainstream classes. In many cases, however, adaptations were necessary. For example, the Macquarie University criterion-referenced maths tests for Kindergarten to 2nd Grade and Macquarie University Written Word Attack Skills were used instead of the Test of Computational Skills and the Neale tests of Reading Analysis. In addition, parts of the AAMD Adaptive Scales were used for children for whom academic tests of reading or maths were unsuitable. A social scale adapted from Merino (1934) was also used for most support class students, rather than the more complex Perception of Social Closeness Scale (Horne, 1977).

The academic and social Indices of Integration devised for mainstream students also needed some adaptation for children in support classes. Consequently, the indices are not comparable across support and mainstream classes.

The items which were included in the academic and social indices for students in support classes are listed below:

A)	Academic Index (Total Score = 30)	Maximum Score
1.	Child's academic progress (teacher rating)	3
2.	Child's academic progress (parent rating)	3
3.	Measured progress over time - Maths	3
4.	Measured progress over time - Reading	3

5.	Appropriateness of curriculum	6
6.	Time spent on academic subjects	6
7.	Pupil time-on-task	6

B)	Social Index (Total Score = 30)	Maximum Score
1.	Child's social/emotional progress (teacher rating)	3
2.	Child's social/emotional progress (parent rating)	3
3.	Peer acceptance (sociogram/observer rating)	3
4.	Peer acceptance (teacher rating)	3
5.	Social progress during year (teacher rating)	3
6.	Class behaviour (teacher rating)	3
7.	Class behaviour (observer rating)	3
8.	Playground interaction (observer rating)	6
9.	Contact with class friends outside school	3

In addition to the academic and social indices, a third index relating to the target student's participation in whole school integrated activities was developed specifically for students in support classes.

The items selected for inclusion in this measure are listed below:

C)	Integrated Activities (Total Score = 30)	Maximum Score
1.	Degree of class integration (location of class/ label of class)	3
2.	Whole class participation in school activities	3
3.	Access to all school areas (indiv)	3
4,	Amount of academic integration (indiv)	3
5.	Amount of social integration (indiv)	3
6.	Appropriateness of academic integration (obs. rating)	3
7.	Appropriateness of social integration (obs. rating)	3
8.	Participation in general school activities (indiv)	3

9.	Contact with regular peers out of school	3
10.	Degree of support teacher participation in wider school activities	3

All components of these indices were summed and expressed as a percentage of the total possible score. The three discrete indices were also summed and averaged in order to obtain an Index of Successful Placement.

Based on minimum and maximum scores, the following cut-off points were established for the Academic Index, the Social Index, the Integrated Activities Index and the Total Index of Successful Placement.

80-100% Indicates very good academic/social progress, a most appropriate level of integrated activities, both academically and socially, and a highly successful Index of Placement.

60-80% Indicates a marginal to satisfactory level for all indices.

33-40% Indicates an unacceptable level for all indices.

A Validation Index, which was the estimate of appropriate placement by the observer and all involved with the child's education, was also computed. However, for children in support classes, the Validation Index must be treated with caution, since it will be low if either a special school or a total mainstreaming placement is favoured as an option. Consequently, if a child is performing relatively well in the special class situation, a low Validation Index may sometimes reflect the need for him to be transferred from special class to regular class placement. It does not, therefore, have the same relationship to the total Index of Successful Placement as is the case for mainstreamed children in terms of their Total Integration Index and their Validation Index.

1) SUPPORT CLASSES FOR STUDENTS WITH PHYSICAL DISABILITIES

Five students enrolled in support classes for students with physical disabilities (P classes) were included in the study. Descriptive data for these students is presented in Table 10. Three of the students (Cases 26, 27 and 62) had previously attended special schools and had moved to newly established units at the beginning of 1988. The remaining two children (Cases 33 and 73) were enrolled in well-established units and had not previously attended a special school. In one of these schools (Case 33), however, the unit had been closed on a trial basis and the students placed within a regular class for the year, with support provided by the former unit's two teachers. Thus, this student was a fully mainstreamed student at the time of observation and is, therefore, more appropriately compared with students described in Section II. This difference must be borne in mind when examining the data presented in Table 10.

TABLE 10

SUMMARY DATA ON STUDENTS IN SUPPORT CLASSES - (P UNITS)

Case No.	Acad. Index	Social Index	Integ Activ.	Index Succ. Place	Valid. Index	Struct. Teaching Style	Class Mgment	Resource Support
	%	%	%	%	%	%	%	%
26 +	63	83	53	67	80	83	100	73
27 o	80	95	85	87	70	27	52	70
62	65	88	68	74	90	83	100	73
73 +	65	83	53	67	75	85	89	68
33	95	83	98	92	95	75	94	95
MEAN (n=5)	68.3	87.3	64.8	73.1	81.3	69.5	85.3	70.5

\+ Marginal successful placement

o Anomalous placement

These results present a somewhat variable picture in relation to the sample of students in P classes, which derives from the fact that there were two distinct groups in this sample. Three students (Cases 26, 62 and 73) spent the bulk of their time in the units, whereas two (Cases 27 and 33) were fully or almost fully mainstreamed. The mean results for the group in both the academic and the integrated activities indices are inflated by the data obtained for the two latter students.

Consequently, it appears that the three students who were receiving their academic instruction within the support class were making somewhat slower academic progress (which can only be described as marginal) than their counterparts in the mainstream. To some extent, this is associated with their greater physical and/or intellectual limitations. It also reflects, perhaps, the problem of obtaining an adequate time allocation for basic skills in classes where students require a high level of 1:1 assistance, and where time must also be devoted to therapy sessions. In addition, it must be noted that, for these three students, the amount of time spent in integrated activities with the regular school was also somewhat limited. However, the social progress of all five students in the sample was highly successful. This, no doubt, would account for much of the satisfaction for support class placement represented by the mean Validation Index of 81.3%.

A closer examination of case study data provides further insights into support class placement for children with physical disabilities. Case 33, for example, highlights the full extent of mainstreaming that is possible when a P unit is incorporated within a regular school. This child attended a unit which had initially existed very much as an isolated entity within the regular school with very little interaction between the two departments. However, barriers had been progressively removed to the point where, in 1988, all students within the two support classes had been placed in mainstream classes with support being provided by the unit staff. Although there were some concerns about total mainstreaming for all former unit students, it was considered in the best interests of most students, including the target child. The high Validation Index for this child, therefore, reflects the general view that she should continue in a mainstream class.

Another child (Case 27) was also being very effectively mainstreamed for most academic and non-academic activities from her P unit. This ten year old girl was wheelchair bound and required special toileting but had almost normal upper limb function, good speech and an average IQ score. She had previously attended a special school located some distance from her home because her nearest neighbourhood school had refused to enrol her on the grounds that she needed the extra resources of a special school. She was now able to return to a regular school in her own region since a special support class attached to that school had been established earlier that year.

Because of her normal speech and intellectual ability, this student was able to take maximum advantage of the opportunities for both academic and social integration afforded by her move to the support unit. Furthermore, her inclusion in the mainstream as quickly and as fully as possible was facilitated by the fact that the executive

teacher of the support unit was the assistant principal of the regular school. Thus, the low Validation Index obtained for this student did not reflect a lack of satisfaction with her current placement but, rather a widespread belief that she should be fully mainstreamed in the near future. In the short term, however, support class placement has facilitated the move from special school to regular class.

For another student (Case 62) full-time mainstreaming appeared to be rather a more distant goal. Nevertheless, the move from special school to support class had also afforded many more opportunities for meeting with his regular peers. From the social viewpoint, the move was considered to have been a success (Social Index - 88%), even though his academic progress within the unit and participation in integrated academic activities was only marginal (see Table 10). A moderate/severe degree of cerebral palsy in all four limbs made this student very dependent on aide assistance. Oral communication was difficult because of oral musculature involvement and all written work required an electric typewriter. Thus, as far as the mainstream staff was concerned, his participation in integrated academic activities was constrained by his physical limitations. As this unit had only been recently established, its executive teacher had not yet developed the credibility needed to organise appropriate academic integration. Nevertheless, both his parents and support class teacher believed he could benefit from a greater degree of academic integration than had been offered at the time of observation, although, as his high Validation Index indicates, support class placement was generally considered his best option.

The two students with the lowest total indices (Cases 26 and 73) were also considered by parents and staff to have benefited socially from their placement in a support class. However, their opportunities for participation in integrated activities were even more limited than the cases already discussed and their academic progress was only marginal (see Table 10). Case 76 involved a student with severe cerebral palsy, but with a normal level of intelligence. This student acquired ongoing access to sophisticated technology and 1:1 assistance for most academic activities. Consequently, he was not considered to be a serious candidate for academic integration, even though it could be argued that he could benefit more from attending discussion-based lessons such as social studies than token and inappropriate participation in craft. Interactions with children in his neighbourhood were also inhibited both by the severity of his physical condition and the distance of the P unit from his home. In the case of this student, the move from special school had neither reduced his travelling time nor given him access to a more "local" school. However, once mainstream staff see the value of his inclusion in grade-appropriate lessons, support class placement will be doubtlessly seen as a better option to special school by his parents and teacher.

In Case 73, on the other hand, the student's limitations stemmed from the fact that a mild-moderate degree of cerebral palsy was combined with a moderate intellectual disability. The latter considerably reduced her opportunities for academic integration (index = 53%) as appropriate support was not available. Moreover, her intellectual disability also limited social interactions with

her peers from regular classes. Furthermore, her academic needs were probably not as well addressed in a P class as they would have been in an IM or IO class, since units for the physically disabled are not necessarily suitable for children with a moderate degree of intellectual disability. This placement dissatisfaction is reflected in the rather low Validation Index of 75 and in a general decision to send the student to the local special school for his high school education. For such students, a blurring of the present categorical distinction between P and IM/IO classes could prove beneficial so that services in support classes could be matched to individual physical and educational needs. These services should be carried through to high school level so that such students have an alternative to a special school for their secondary education.

Summary

Despite the diversity of their problems, all 5 students were considered to have benefited to some degree from a period of placement in a support class (P). For some, these classes are providing the opportunity for progression into regular classes, while still giving pupils and class teachers back-up support from the unit staff on site at the local school. For others, whose physical limitations make full-time mainstreaming a more elusive prospect, the support classes, nevertheless, provide far more opportunities for social integration with non-disabled peers, particularly where such activities are planned and monitored rather than being left to chance. In addition, participation in grade-appropriate aural lessons in the mainstream would provide educational opportunities that may be denied to competent students in special schools. However, the current practice of integrating support class students in non-academic lessons, such as craft (rather than in social science, for example), tend only to exacerbate their physical difficulties without exposing them to valuable academic content. For those with an intellectual as well as physical disability, the provision of appropriate curricula and the use of specialised teaching techniques are as important as the provision of therapy services if these students are also to benefit from placement in support classes.

Although ongoing access to therapy services is necessary for many students with physical disabilities, this must be balanced by the provision of adequate instructional time if they are not to become educationally disadvantaged. Hence, carefully planned timetabling of therapy sessions is essential to ensure minimal disruption to academic work. Furthermore, it is also necessary for therapy staff to consult within the mainstream in order to maximise both social and academic interaction.

Another issue highlighted by these case studies is the need for appropriate support staff to students who are partially mainstreamed for academic subjects. Even when of average or above average intelligence, these students often function below grade level in basic subjects. Unnecessary strain is placed both on teacher and student if such assistance is not provided - either by an appropriately qualified support teacher (learning difficulties) or by the staff from the support class (if they have the necessary

expertise in special education). One of the major advantages of specialised staff attached to units is that they can provide support not only to support class children within the mainstream but also to those regular pupils who are having academic or social difficulties. This role is easier to implement, perhaps, when the executive teacher in charge of the unit comes from the regular school staff (as seen on one site), rather than from the unit staff, and who must first gain credibility within the regular school. In addition, as in all mainstreaming situations, a strong commitment by total school staff to the concept and practice of integration is vital and should be on of the prerequisites for locating a special support unit on the site of a regular school. Furthermore, if support classes are to function effectively, they should not be located in places distant from the homes of their clients.

2) STUDENTS WITH MILD INTELLECTUAL DISABILITIES (IM CLASSES)

The majority of children with mild intellectual disabilities in NSW are in regular classes. A proportion, however, are referred for special class placement, traditionally at about 3rd grade level, although transfers from 2nd grade are also being undertaken. These referrals tend to be those children who fall within the mild range of intellectual disability and who are not progressing in the regular class. Typically, many students enter IM classes as non-readers or with only minimal competencies in reading and maths, and some may also be deficient in social skills.

IM classes have a maximum of 18 students who may be drawn from a number of schools in the 'catchment' area. Not all teachers of IM classes have training in Special Education and, generally, no teacher's aide support is available (although, some classes make good use of volunteers). For some students, an IM placement may be viewed as an opportunity for an intensive "catch up" period so that they may return to a regular class better equipped to "cope". For many others, however, the placement may be long-term and, perhaps, continue into high school.

Of the five students from support classes (IM) who were included in Stage 2, two were from country regions and three from the Sydney metropolitan regions. Descriptive data for these students is presented in Table 11.

TABLE 11

SUMMARY DATA ON STUDENTS IN SUPPORT CLASSES - IM

Case No.	Acad. Index	Social Index	Integ. Activ.	Index Succ. Place	Valid. Index	Struct. Teaching Style	Class Mngment	Resource Support
	%	%	%	%	%	%	%	%
3 °	83	80	77	80	70	74	22	38
34	78	75	83	79	95	85	47	25
49	82	88	78	83	100	52	59	35
68	98	97	85	93	95	81	98	60
69 *	73	68	57	66	55	63	34	35
MEAN (n=5)	82.8	81.6	76.0	79.8	83.0	71.0	52.0	38.8

° Anomalous placement * Unsuccessful placement

The needs of three of these students (Cases 34, 49 and 68) appear to have been well served by placement in an IM class (refer Table 11): all three are considered to be making satisfactory progress in all areas - and to be participating in a wide range of integrated activities. This success is reflected in a very high Validation Index for each of the three, indicating general agreement as to the present appropriateness of the placement and its continuation. Case 69 represents the only unsuccessful placement in the sample, while in Case 3, a low Validation Index indicates he would be more appropriately accommodated elsewhere.

The most effective IM placement in this small sample is clearly Case 68. Although the teacher in this class was well above the average, in the use of a highly structured approach to teaching, the most striking factor is her very high score in terms of classroom management techniques - 98% - compared with a mean score of 52% for all IM teachers in the sample. Analysis of the more detailed case study data suggests that this difference does not reflect different student characteristics but rather the impact of a particularly highly skilled and trained teacher.

Another factor which appeared to contribute to the very effective social integration of this student was the fact that the class was largely "school based": almost all the students in the class came from the "host" school itself and, thus, were always considered very much part of the school community. In addition, the teacher (who was the executive teacher, with responsibility for three other support classes) had a very high level of credibility within the school, as a whole, and had worked hard to increase both the awareness and acceptance of the whole school of students with disabilities. Her high credibility extended also to Regional level, where she had made major contributions to staff development in the area of integration.

The success of Case 68 may be contrasted with Case 69, where the class had only been established for one and a half years and all the students came from other schools. This teacher felt that both she and her students were only marginally accepted at the school and she had not been given any opportunities (as yet) to become involved in wider duties within the school. The children within the class tended to play mainly with each other. Their isolation was accentuated by the location of their classroom - on its own, in an older wing of the school - and by the lack of a carefully planned integration program. The only student to be integrated for academic subjects was the target student - who attended a small reading group in the resource room with children from a regular 5th grade. Although all the class attended integrated sporting activities at their appropriate grade levels, the regular teachers observed in charge of these sessions did not appear to know how to ensure meaningful participation by the IM students.

The target child in this class, an eleven year old with Down Syndrome, had spent time in both regular and special classes since commencing school. In the year prior to the study, he had been successfully placed in a regular 4th grade, with some support from a support teacher (learning difficulties) in the area of reading. After the first few weeks in 5th grade, however, he had been returned to the IM class. The reasons given by the school (and

confirmed by both the school counsellor and the child's mother) were that:

a) the class sizes were much bigger than in the previous year;

b) the teacher had high academic expectations for the class and believed that the placement of a child with Down Syndrome in that class was inappropriate;

c) no special funds were available to support his integration.

All, therefore, felt that the IM class was the best solution under the present conditions and the child, himself, expressed satisfaction with that class. He continued to attend a small reading group with children from the regular class, taught by the support teacher (learning difficulties) - as his reading age (being close to his chronological age) placed him well above the other students in the IM class.

The data on this student suggest, however, that the IM class was not meeting either his academic or social needs very effectively. Although the target student's progress in academic areas was somewhat greater than in other areas, this appeared to be limited by a high level of total class off-task behaviour, accentuated by the teacher's inability to manage several children who displayed difficult (and, at times, even bizarre) behaviours. With the exception of the support class teacher, all persons involved with this child's education recommended that he, therefore, be returned to a mainstream class as soon as possible. The school staff, however, believed that, in view of the large class size, this would not be possible unless additional resources were available to support that placement. Negotiations were under way with the Regional Integration Officer but the school's eligibility for additional support for this placement was not clear.

In Case 3, questions were also being raised concerning the most appropriate class placement. Although this student appeared to be making satisfactory progress and was well integrated in a number of social activities, his teacher felt that he would benefit from spending more time in a regular class, prior to his progression to high school in 1989. Both the teacher and principal recommended that this student be transferred to a regular class on his enrolment in high school in the following year.

Case 34 is an interesting one, in that this student had moved to a support class only at the beginning of the year and had been included in Stage 1 as a mainstreamed student. The transfer had been arranged because a) the student had not been coping with an (unmodified) third grade curriculum, b) the teacher did not have the skills to provide an appropriate curriculum for the student, and c) no in-class support was available from either within the school or from the Region. Although some problems were evident in his present IM class because it included several children with behavioural problems, the academic needs of this student did appear to be better catered for in the IM class than in an (unsupported) mainstream placement. When appropriate support is not provided to an inexperienced regular teacher, then the modified curriculum and greater individualisation provided in a smaller support class

appear to be more advantageous for a child with intellectual disabilities.

Summary

Although four of the five students sampled from IM classes were generally considered to be making satisfactory progress in most areas, these data do cast some doubt on current policy regarding IM classes. The inclusion of students with behavioural problems in a class of 15-18 students with a wide range of academic needs, coupled with no additional support, does create a generally stressful situation for both teachers and students. Maximal effectiveness under these conditions appears to be possible only through the provision of a very highly trained and experienced teacher. For most teachers, even with special education training, a higher level of support and a more rigid selection procedure (to eliminate students with severe behaviour problems) is necessary to ensure a more educationally effective IM class. Furthermore, social integration of these students can be enhanced when:

a) classes are located in their own neighbourhood school;

b) the class and teacher are accepted fully by the other school staff and students as an "integral" part of the school; and

c) integrated activities are carefully planned and monitored to ensure maximum participation by, and benefit to, the IM students.

The lack of appropriate academic support to students from IM classes who are being partially or fully mainstreamed is a constraining factor in returning an IM student to the regular class. The IM teacher, who already has a very demanding role in meeting the diverse needs of the rest of the class, is unlikely to be able to offer much direct support, herself, unless all of her students are being mainstreamed and, thus, additional resources may be necessary.

While the teachers in this sample of IM classes tended to use structured teaching strategies to much the same extent as those in the sample of IO classes, there was a significant difference in their "classroom management" scores (see Table 12). With one notable exception (Case 68), these teachers scored well below the IO teachers in this area. This difference does not appear to reflect a difference in training as 80% of both groups had qualifications in special education (usually at postgraduate level) but rather the class population and ecology; the larger size of the IM classes (15-18 compared with 6-9); the absence of teacher aide support; and the presence of children with behavioural problems in the IM classes who need specific management strategies.

3) SUPPORT CLASSES FOR STUDENTS WITH MODERATE INTELLECTUAL DISABILITIES

The number of support classes for students with moderate intellectual disabilities (IO) has expanded rapidly in NSW in recent years, so that there are now a total of 57 classes across the state. Many of the children in these classes have moved from special schools while, in some cases, whole classes, or even schools, have been relocated to IO classes in regular schools. A small proportion of the children in these classes have been referred for placement from the regular stream, while many others have been enrolled in an IO class from school commencement.

Teachers of IO classes see these as having a dual role:-

a) As an "intermediate" position for some children who may ultimately be fully mainstreamed; and, more commonly;

b) As a better long-term alternative for many students who would otherwise have attended a segregated special school.

The general success of these placements is demonstrated by the data in Table 12. In the first place, IO classes appear to be meeting the special academic needs of most of their students, as demonstrated by a high mean Index of Academic Progress. Only two of the ten children (Cases 29 and 72) were failing to make satisfactory academic progress, while the progress of a third child (Case 89) was somewhat more marginal. As a group, these children were also making satisfactory progress in the social/emotional area, as evidenced by a mean Social Index of 79.4%. Once again, however, there was a high degree of variability, with two children (Cases 67 and 72) making somewhat less than satisfactory progress in this area, while the progress of three more (Cases 2, 90 and 91) could be considered marginal. The third index, measuring participation in integrated activities, also shows a high degree of variability - with four students receiving scores of over 80 and two only 60 or below. On average, however, these children appear to be participating in integrated activities to much the same extent as children in IM classes (Table 11) and somewhat more often than children in P classes (see Table 10).

The most striking feature of the data in Table 12 is that, despite the variations in the amount of academic and social progress evident for these students in IO classes and their varying amounts of participation in integrated activities, all students received a Validation Index of over 90%, indicating that, without exception, those associated with each of these children believed that their placement in an IO class was appropriate and should continue.

TABLE 12

SUMMARY DATA ON STUDENTS IN SUPPORT CLASSES - IO

Case No.	Acad. Integ.	Social Integ.	Integ. Activ.	Index Succ. Place.	Valid. Index	ORS Scores Struc.	ORS Scores Class Mgmnt	Resource Support
	%	%	%	%	%	%	%	%
2	88	77	73	79	100	78	76	65
29 [1]	68	80	82	77	100	50	89	75
65	93	92	88	91	90	N.A.	N.A.	N.A.
67 [1]	82	65	82	76	100	100	98	55
70	97	90	60	82	95	94	100	73
71	93	88	78	87	95	81	94	83
72 [1o]	65	62	72	66	100	70	94	55
89	77	88	70	78	100	57	88	88
90	95	77	52	74	93	68	76	85
91 [1]	98	75	82	85	100	72	87	85
MEAN (n=10)	85.6	79.4	73.9	79.5	97.3	**74.4	**89.1	73.8

[1] Previous enrolment: special school

[o] Anomalous placement

** Excluding Case 65

Academic Progress

The very satisfactory academic progress of most of these students appears likely to reflect a number of factors:

a) The provision of an appropriate academic program in all classes;

b) a (generally) high allocation of time to basic academic subjects; and

c) the use of highly structured teaching strategies by most teachers.

Very few of these students were integrated for academic subjects as, in general, they were performing 2-3 grade levels (or more) below their same age peers and no support (except that which the IO

teacher could provide) was available to assist with their integration in these areas. Only in one class (Case 67) were there regular opportunities for academic integration provided for IO class numbers. It is worth noting, however, that this was a junior IO class, so the children were being integrated into infants classes. Moreover, the target child (who was one of the lowest functioning, in academic terms) was not able to participate in such activities.

Social Progress

The degree of social acceptance/progress of these students appears to be related, to some extent, to their previous class placement. Four of the ten students had been transferred relatively recently from special schools (in three cases because of a general transfer of the whole class) and of those, three were making somewhat less than satisfactory progress in the social/emotional domain. This situation may possibly reflect two factors:

a) the relative recency of their transfer from a special school where more deviation in social behaviour is generally tolerated; and/or

b) a greater degree of intellectual disability in those children who are initially enrolled in special schools, as opposed to those who are enrolled directly into a support class at kindergarten level. Although no psychometric data are available, case study data on three of these four children indicate a relatively low functional level, suggesting that their intellectual disability probably placed them towards the lower end of the moderate range.

Although few of the IO children had contact with school friends out of school hours, most were observed to interact appropriately with other children in the playground. Most often, they would choose to play with their friends from their own class, but a (smaller) number of appropriate interactions were also observed with children from regular classes and very few instances of teasing or outright rejection were reported. In one case (Case 29), because of the physical smallness and immaturity of the target child, there tended to be an element of "mothering" from children who clearly underestimated the target child's age. In one other case (Case 72), the target child was observed to act aggressively towards some of the regular children and this behaviour did tend to lead to rejection by her regular peers. Programs to encourage appropriate behaviour, both for regular and unit children, need to be established to enhance appropriate social interaction.

One problem commented on by a number of the IO class teachers was that their students were frequently "lost" and bored in the totally unstructured playground situation. The provision of various pieces of equipment (skipping ropes, hoops, balls) generally assisted in the encouragement of appropriate playground behaviour. Very often, however, such items were not allocated as a matter of course to all students, so the IO teacher would have to provide such things directly for her students.

Integrated Activities

While all students participated, to some degree, in integrated social activities, only two of the students (Cases 65 and 89) participated in integrated academic activities on a regular basis. In most other case studies, this lack of integration was generally considered appropriate in view of the difficulties of providing an appropriate academic program for IO students within the regular class. However, in three cases (Cases 70, 71 and 90), it appeared that the students could have benefited academically from some participation in integrated classes, as their academic progress was reasonably high. In some schools, integrated activities did not go much beyond playground interaction and participation in whole school excursions and assemblies, while in others a variety of integrated activities were carefully planned and implemented. These included integration with another (age-appropriate) class on a regular weekly basis for classes such as sport, craft and music, and on a daily basis for activities such as fitness. In some classes, successful programs of reverse integration were also being implemented. For example, in one class (Case 67), two children from the IO class who spent several periods each day in two regular classes were replaced by a child from their host class who, it was felt, could benefit from some time in the IO class. In two other schools (Cases 72 and 89), older children came into the IO classroom on a regular basis to act as peer tutors while in one of these schools (Case 89), a "buddy" system was also proving very effective in increasing playground interaction. There is evidence from relevant questionnaire data that support class teachers with good credibility within the regular school are able to achieve a greater degree of both academic integration and reverse integration between support class and regular school.

Resource Support

Overall, most of the IO classes appeared to be reasonably well provided with resource support in the form of personnel, as most had access to an aide on, at least, a half-time basis. This resource allocation, however, is based on class type, rather than need. While some classes were more than adequately served by a half-time aide, for others there appeared to be a need for more aide time. This was particularly true for classes such as those represented by Cases 67 and 72 whose students came from very disadvantaged social backgrounds with a higher proportion of non-English speaking families. Such students tend to require very much more input in the area of both language and social skills training than students from a higher socio-economic background. Moreover, academic skills (such as number and reading) are rarely reinforced at home so that progress in both academic and social areas tends to be slower. Classes with a high proportion of such children would clearly benefit from greater aide time to enable more intensive 1:1 teaching for these students.

In terms of physical resources, many IO teachers felt that both initial establishment funds and ongoing resource allocations were far too low to establish and maintain a well-equipped IO class. Consequently, most IO classes could not compare with classes within

a special school in terms of access to equipment and materials. For example, very few classes had a "wet" area or access to kitchen facilities for cooking lessons and, in many cases, teachers had supplemented their meagre allocation of play or leisure equipment with toys and games discarded by their own children.

Summary

The data from these ten case studies suggest that an IO placement can be both appropriate and successful for a wide range of students who would otherwise have had little opportunity for mixing with "regular" students at school. The amount of integration experienced by the student does tend to vary from class to class, and appears to be associated not only with degree of disability but also with the degree of credibility within the regular school achieved by the support class teacher.

The factors that appear to contribute most to a successful IO class may be grouped under several headings:

1. Class Factors

- Physical location - The class should not be isolated, but be adjacent to similar age peers.
- Label - The name of the class should be similar to that of other classes (not "special" in any way).
- Curriculum - This should be individual, age-appropriate and broad (both academic and social skills).
- Programming - Sufficient time should be allocated to basic skills which should be appropriate to age/level of students.

2. Teacher Factors

- IO support classes - Teachers should have an appropriate qualification in special education.
- They should have experience in both regular and special education.
- They should have high credibility with other staff.
- They must have a high degree of involvement in (regular) school activities.

3. School Factors

- Principal - The principal should provide positive support, and display positive attitudes towards the class, as well as having an understanding of special resource needs. He/she should also be flexible and uphold the authority of the executive teacher.

- Other staff should have positive attitudes towards disability. They should provide "moral" support and acceptance of both teacher and students, as well as being prepared to be flexible.

- Resources need to be adequate, appropriate and flexible.

4. Integrated Activities

Provision of opportunities for meaningful integration for support class students appear to be most successful when:

- They are well planned, with ample consultation with regular teachers;

- Goals are clearly delineated and understood (whether social or academic);

- Adequate support is available;

- They are age-appropriate and relevant to students involved;

- They take account of students' specific strengths/weaknesses and likes/dislikes; and

- They are continually monitored and evaluated.

CONCLUSIONS

SUMMARY OF MAIN FINDINGS, ISSUES AND RECOMMENDATIONS

In this concluding section, it is proposed to:

1) outline the main outcomes of the study;

2) identify the main issues raised and make suggestions for future action.

Section 1

a) Overall Results for Mainstreamed Students (N = 69)

Forty-five students (65% of the total sample) are regarded as successfully mainstreamed, three are considered marginal and nine (13%) are categorised as anomalous in that there are discrepancies between the Integration Indices and the Total Validation Indices. Only 12 cases (17%) are classified as ineffectively placed. The data reflect a high degree of satisfaction with the mainstreamed placements in terms of both academic and social outcomes. Indeed, there is little evidence of outright rejection or major controversy.

b) Child Factors

The nature of the child's disability does not appear to affect the success of the placement, provided that favourable conditions such as structured teaching methods, appropriate support and positive school ethos are present. Without these prerequisites, some children, such as those with moderate intellectual disabilities and/or those with mild disabilities plus an additional handicap, are less likely to succeed at upper primary and high school levels.

c) Classroom Factors

The factor most closely associated with successful integration is a structured teaching method which includes clear teaching objectives, well sequenced curricula, regular monitoring of progress and a teacher-directed approach to basic skills.

d) School Factors

The two most important factors for effective mainstreaming are appropriateness of support and school ethos, as exemplified by the commitment of principal and staff to the principle and practice of integration.

e) Parental and Other Factors

The successful integration of students with all types of disabilities is facilitated if parents or caregivers are committed to mainstream placement and are willing to co-operate with the school's program.

The above general findings confirm the provisional outcomes of Stage 1 in that most difficulties in mainstreaming can be overcome by appropriate organisational and technical means if positive school attitudes are present. It is noted, however, that students with the disabilities studied encounter more difficulties at the upper primary and high school levels, where degree of disability also becomes a critical issue.

A PREDICTION CHART is included in the beginning of the report so that any disabled child's integration pathway can be plotted once child, classroom and school factors are established. It is evident from this chart that even the most disabled child in the sample can be effectively mainstreamed if the total school ecology is optimal and parents are both committed to integration and supportive of the school program.

Section II

a) Students with Physical Disabilities

Students with physical disabilities of neurological origin were successfully maintained in the mainstream, with only two of the eighteen placements being considered less than successful but were closer to marginality than younger, less disabled children sampled in Stage 1. There appeared to be a generally positive attitude and commitment to this disability by the schools concerned, which resulted in a desire to continue mainstreaming, even when students were experiencing difficulties in academic and/or social areas.

b) Students with Intellectual Disabilities

The overall level of success for this group (56.5%) was comparable to Stage 1 in its variability but both mean Total Integration Index and Total Validation Index were below the minimal cut-off point regarded as acceptable for effective mainstreaming. This is probably indicative of the greater difficulties this group experienced in upper primary classes. School attitudes were often less supportive and more variable than was the case with the physically disabled as evidenced by the greater relationship between actual performance and desire for continued placement. The degree of disability and the age of the children were negatively correlated with success.

c) Students with Multiple Disabilities

This group appeared to have experienced considerably more success than might have been anticipated from the Stage 1 data, since only two of these students were considered unsuccessfully placed. Positive principal and staff attitudes appeared to have played an important role with this group, particularly as they reflected considerable care with the initial placement and flexibility in adapting classroom practice to meet the children's individual educational needs.

d) Students with Sensory Disabilities

This group of high school students continued to be the most effectively mainstreamed of all those enrolled under the Enrolment of Children with Disabilities Policy. Only one of the sixteen students could be described as unsuccessful, although three were categorised as anomalous, indicating that, despite social and/or academic problems, their placement in the mainstream was, nevertheless, regarded as legitimate. There was evidence of greater difficulties in mainstreaming students in the high school than at the primary school level.

e) Students with Learning Disabilities

This group represented children withdrawn from regular schools for a period of intensive remediation in basic skills (6-12 months). Those who were classified as educationally disadvantaged were successfully re-integrated into their home schools but those with a long-term, pervasive disability were experiencing more difficulties at the primary level as they did not have access to appropriate continued support.

Section III

Students in Isolated Schools

The integration of these seven students must be regarded as marginally successful as only three were considered effectively mainstreamed. These results were not unexpected in view of the greater level of disability within the group, some degree of social disadvantage and limited access to appropriate services.

Section IV

Support Classes for Students with Physical Disabilities and Intellectual Disabilities (N = 22)

(Note that these were studied as components in a range of services for children with disabilities, with a view to identifying appropriate learning environments and opportunities for academic and social integration within the mainstream).

a) Classes for Students with Physical Disabilities (P classes)

These classes can be construed both as a terminal placement for children who may need a separate curriculum, sophisticated technology and frequent access to therapy sessions and as an intermediate stage in the preparation for mainstreaming. As a terminal placement, these classes were seen as a better alternative to special schools, although opportunities for appropriate academic integration were not being maximised. As an intermediate stage, these classes were proving effective, particularly when the executive staff had credibility within the regular school.

b) Classes for Students with Mild Intellectual Disabilities (IM classes)

In general, the children placed in these classes were making reasonable progress, often despite the presence of several behaviourally disturbed children in the same class. In only one class were conditions described as optimal in terms of high academic/social progress and a high level of integrated activities. This was associated with a well-trained support class teacher, with excellent management skills and high credibility within the school.

c) Moderate Intellectual Disabilities (IO classes)

The data suggest that IO classes can be both appropriate and effective for students with moderate intellectual disabilities who require a highly individualised program. This appeared to be associated with the fact that teachers in IO classes used highly structured strategies, had access to an aide and only catered for a small number of highly selected pupils. However, there was evidence of only limited academic integration in the mainstream for these students, although all participated, to some extent, in social integration.

severely disabled children with good cognitive skills into age-appropriate aural academic lessons, rather than in craft classes.

Another issue which the research team considered important was the blurring of roles among support units. Children in each type of unit may be in need of physical therapy as well as optimal educational strategies and should have access on the basis of need, rather than on disability classification.

f) Future research

(i) With modifications, the present methodology should be used to maintain a data base for longitudinal study. This should be sufficiently large for predictive purposes and the weightings of variables in the indices could be progressively refined.

(ii) The research team was aware that its study of effective classroom practices was limited, not only be the time available for each child, but also by the need to study his or her response in much more detail. In particular, aspects of adaptive instruction features, such as the training of strategic behaviour, adaptation of curriculum and use of prostheses are important for further research into effective classroom practice.

(iii) The pre and post service training of teachers needs to be studied so as to arrive at an optimal mix of theory and practice. The impact of this upon attitudes is important.

(iv) The training and deployment of resource personnel, school counsellors, ITBD's and support teachers with respect to integration require study.

a policy of mainstreaming. The need for the selection of highly trained personnel is, therefore, paramount.

Training should also be available for teacher aides. Data suggest that there seems little point in placing an untrained aide with a teacher lacking in special education training and skills, unless a high level of resource support is available. In the case of visiting therapists, they should be willing and able to operate in mainstreamed classrooms and to provide advice and training to teachers.

e) Support classes

In the case of children for whom the necessary range of resources is not available or who possess characteristics which make them unlikely to succeed in the mainstream, the support classes provide an obvious alternative to special schools. However, a number of issues have been identified in relation to the three types of classes studied.

IO classes which usually combine small class size with optimal resources in the form of specialised teachers, an aide and a well structured curriculum, appear to be successful. However, given the same intensity of resources, some children from these classes could equally succeed in the mainstream. This issue is brought into focus by successful placements of such children in isolated schools, given a high level of support.

IM classes seemed to be the least effective of the support classes studied since they often appear to combine a much larger class size with non-specialist teachers, no aides and excessive numbers of disruptive children. There are grounds, therefore, for reconsidering the roles and functions of IM classes, perhaps in the direction of making them resource rooms with a high level of pupil turnover and/or making use of the support class teacher as a support teacher to the school. In cases where a highly competent teacher was in charge, however, they seemed to possess some advantages over mainstream class placement with no support for some children with moderate intellectual difficulties.

There are some important organisational issues also associated with the P class. More opportunities should be engineered for academic integration within the mainstream for selected physically disabled children. A fully mainstreamed severely handicapped child in a country area illustrates the feasibility of such placements. Opportunities should also be provided for reciprocal visits with children in regular classes. In this regard, the support teacher can play an important role by working with regular class teachers to support both physically disabled and regular children with difficulties within the mainstream. In terms of administration, it appears that when the executive teacher of a support unit comes from the mainstream school, opportunities for integration are more readily available. However, it also appears that E.T. teachers from the support unit are more familiar with optimal forms of integration, ie. placing

severely disabled children with good cognitive skills into age-appropriate aural academic lessons, rather than in craft classes.

Another issue which the research team considered important was the blurring of roles among support units. Children in each type of unit may be in need of physical therapy as well as optimal educational strategies and should have access on the basis of need, rather than on disability classification.

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(iii) The pre and post service training of teachers needs to be studied so as to arrive at an optimal mix of theory and practice. The impact of this upon attitudes is important.

(iv) The training and deployment of resource personnel, school counsellors, ITBD's and support teachers with respect to integration require study.

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EXEMPLARY
CASE STUDIES

CASE STUDY 22 - KERRY

DISABILITY: PHYSICAL OF NEUROLOGICAL ORIGIN

GRADE: 3

TOTAL INTEGRATION INDEX: 90%

TOTAL VALIDATION INDEX: 100%

The School

Established more than 80 years ago, this school fronts a highway passing through a residential area of predominantly high-income families. A split site requires the location of the 430 students in primary and infants sections separated by a minor public road, though the former departmental structure has given way to a K-6 organisational model posing a number of administrative problems for the Principal. Use of infants facilities and playing areas by primary classes requires rostered movements of students and staff. Changes of level restrict access to several parts of the school by children in wheelchairs, but permanent and demountable ramps have been provided as well as equipment to help them reach the second floor of the main primary building. Recently painted classroom blocks are carefully placed to make best use of the restricted site and trees have been retained wherever possible.

Two special support classes and six students integrated into regular classrooms account for a considerable proportion of the Principal's administrative time, especially as parents of children with disabilities pay frequent visits to the school to discuss problems and expectations. The Principal is keenly interested in special education, has developed an expansive knowledge of several disabilities and attempts to promote mutual understanding by parents and teachers. In some weeks she necessarily devotes up to two thirds of her time to special education problems. If she had an Executive Teacher equipped to assume much of that role she would feel less anxious about a large range of whole-school problems competing for her attention. Parental expectations - especially those of mothers of handicapped children - in some instances are not easily related to the realities of managing a regular school on a difficult site. Tensions between parents and teachers reflect points of view that can seem incompatible without lengthy discussions. Some parents find it difficult to accept that a regular school cannot provide all the special services expected, while teachers have reservations about integration even if they are not opposed to it "in principle". The Principal feels bound to warn parents that an integrated class is not a cure-all and that some children cannot be accommodated with present resources. At the same time the existence of support classes brings together children with a great array of problems and sometimes leads to tensions between parent groups with different expectations concerning their children's welfare.

Difficulties of this kind are not obvious. In classrooms and on playing areas the student body presents a happy, orderly and

mutually caring disposition. Children in wheelchairs appear to be well accepted. Teachers and children communicate easily. Whole-school activities such as Science Week and the Skip-jump fitness program are clearly successful in involving every student, as are visits to the Life Education Centre and other excursions. Disabled children are not viewed as novelties and, although there is no rush to push children in wheelchairs, help is readily and inconspicuously provided when needed.

The Classroom

The building housing two Year 3 classrooms, each with a wheelchair student, has a ramp and an adapted toilet. Kerry's classroom has tables arranged in a double horse-shoe form with a small carpeted area at the front. Children are in neighbourhood teams, but are grouped by the teacher, mainly to promote independent work with a minimum of friendly distractions. Team scores for behaviour, effort and achievement are frequently updated. The chalkboard is well organised by the teacher, who has also filled walls, windows and spaces over students with pictures, charts, "stimulator" words, models, plants, etc. It is an attractive if cluttered room in which the children work happily with no encouragement to waste time. Rules are not strictly enforced provided the class is busy. The teacher rarely sits at her table, as the monitoring of individual progress is continuous.

Kerry's practice until recently was to sit at the table in her wheelchair, leaving it only to join others on the nearby carpet occasionally, but she now prefers to use an ordinary chair and footstool even though considerable effort is needed to move. She can get around quite fast by crawling when she wishes, has ready access to all parts of the room and loses little time when visiting the conveniently placed toilet.

Variety in teaching style and content is provided by teachers of Italian, art and science, and the class has regular short lessons in the school library. An aide is available with a number of children who appear to pose more problems than Kerry, who is rated by the teacher as in the top 20% for classroom behaviour, 60-80% for peer acceptance and reading and 40-60% in mathematics. In the teachers words, Kerry behaves and performs so "normally" most of the time that it is easy to forget she is handicapped.

The Teacher

With experience in primary schools in Australia and abroad extending over 36 years, Kerry's teacher is currently on a one-year appointment to the present school. She has not previously had a student with disabilities integrated into a class but is experiencing no difficulty with Kerry. Major instructional decisions are made in consultation with the Principal. Weekly testing is employed to monitor student progress and comprehensive reports are provided for parents twice a year. Kerry is not deemed to need a special curriculum but her relative slowness in completing tasks often requires the allocation of additional work-time. Extra help is also given to three others with learning

problems, though this is partly provided by the school's resource teacher in withdrawal session. Kerry's presence in the class, according to the teacher, has helped to make many of the children more considerate, more aware of people less fortunate than themselves and less inclined to make thoughtless, hurtful remarks. Kerry's placement is regarded as very successful academically, socially and emotionally (rated 4 on a 5-point scale). The teacher wishes her to continue in the present class and has no doubts about her placement in regular classes in future years.

The Child

Pretty, immaculately groomed and generally happy at school, Kerry copes well with her disability. Prior to 1988 she attended a special school for crippled children beginning with early intervention from age three and a half. She had friends and enjoyed attending that school, where there was plenty of fun and easily managed work. Kerry is unsure why she was transferred to a regular school, but has been surprised to find she likes it better, still has fun, can make new friends and manages most class work well even though it is often hard (especially mathematics). She enjoys writing stories. Out of class she likes to talk with a few peers, spends a lot of time with a friend who encourages her to play tip and turn a skipping rope, and is fond of another child who seldom plays with her but rushes to wheel her around the playground and chat if she appears to be temporarily isolated. Another peer frequently calls to play at her house in the company of several friendly neighbours. Kerry's favourite out-of-school game is "ghost busters". She has learnt to compensate for her physical disability and, in other respects, believes she is much like most other children.

In class Kerry generally sits quietly intently working even when others nearby are restless and talkative. She does not expect "service", wheeling herself quickly to collect papers, books etc. and unselfconsciously using her mouth to carry items back to her table. She likes to join others on the carpet for news sessions, stories and whole-class discussions, and does not accept help in getting back into her chair except when the brakes seem inadequate.

Her teacher and the observer were surprised to note occasional flashes of temper, accompanied by punching of passing peers who had interrupted her concentration. According to her mother, tantrums are not unusual when Kerry is tired and frustrated, though she rapidly returns to her normal, quiet and intent pattern of behaviour. She says she sometimes attracts unwelcome attentions in the school playground but minimises these by moving in the direction of a supervising teacher. This, she observes, is nothing to worry about and she is capable of mixing freely in many school games when she so desires.

Close observations in class indicated that Kerry tends to be on-task more than most of her peers. She offers the explanation that she has to concentrate more than others because she is a slow worker and some of the work is hard. This makes her feel tired some days but she is determined to be among the best students in her class and is prepared to make special efforts when helped by an

understanding teacher. In the view of the district school counsellor, good teacher-pupil relationships account for Kerry's successful integration into a regular class. There appears to be no reason to expect serious problems in Kerry's integration as she proceeds through the grades in her present school.

Peer Acceptance

A sociogram completed by the class indicated that in half a year Kerry had won a fair measure of peer acceptance. While eleven children would prefer that she leave them alone, four are keen to have her visit their homes, five like to play regularly with her and another four are willing to spend time with her occasionally. Only three wish her to be more like most others. Kerry identifies only one unacceptable peer, would like five of the boys to be more like the others and she is happy to play with the rest of the class. One girl is her special friend and most welcome at home.

Parental Attitudes

The decision to seek a placement for Kerry in an integrated class was taken by her parents. They feared she would not make satisfactory academic progress otherwise, and thought that progress on this front would outweigh the social and emotional advantages of continued enrolment in a special school. It was their hope that Kerry would learn to interact with "normal" children, adjusting to life outside a "sheltered" environment, and become less egocentric.

Difficulties were not deemed to be insuperable, although the parents were advised to wait a year as it was the opinion of the school staff, counsellor and regional integration officer that Kerry was not yet ready to make the change. In the event about 18 months passed, including time for discussions with a local school which thought its site unsuitable for wheelchair use. The specialist counsellor for the physically handicapped steered the parents in the direction of the present school, where the Principal and the school counsellor co-operated in attempting to speed up the installation of ramps and an adapted toilet. Two other physically disabled children were already enrolled so the school staff understood the problems and were co-operative. While awaiting the provision of special facilities it was necessary for teachers to lift Kerry several times a day.

The parents are very grateful for the help and co-operation of all concerned with Kerry's transition to a regular classroom. They appreciate the frequent consultations about her education, have attended case conferences, can consult the Principal as necessary and are happy to assist in school activities such as excursions. The mother teaches Kerry at home for 30-60 minutes daily, conscious of her daughter's "slowness" with academic tasks. She considers that the Principal and the Year 3 teachers are developing the necessary expertise and understanding of children with neurological difficulties. The family is unable to judge whether the type and amount of support provided is appropriate, but their impression is that the integration program is highly successful.

Kerry seems willing to become more independent. She is happy to attend school and is generally contented at home, though she sometimes vents her temper on her younger brother and parents when thwarted. She has made one good friend at the school, meets local children and seems mostly to have benefited from better behaviour models. Her complaints that work is hard are not treated over seriously.

The mother says she is sometimes embarrassed when meeting other parents who do not understand Kerry's disability, but is pleased that Kerry is invited to birthday parties and plays well with neighbours. No regular out-of-school activities are undertaken.

Kerry is said to day-dream a lot but is obviously making pleasing academic progress. Socially immature, she is learning to interact better with non-handicapped children. Emotionally she is also immature but is developing more independence. The parents wish her to complete the rest of her schooling in integrated classes unless experts strongly advise otherwise. Her father, a specialist in the computer field, hopes to steer Kerry into some branch of computing. Her mother, who does not go out to work, says she is not "pushy" and expects that Kerry will eventually find happiness as an adult, hopefully sharing a flat and having a satisfying job.

As Kerry at birth was not expected to live yet has gone on improving, parental hopes have kept rising and there now seem to be good reasons for continued optimism. The co-operation of a good school in integrating Kerry powerfully reinforces that optimism.

Use of Resources

Kerry's integration has been facilitated by the installation of ramps and a modified toilet. She receives some in-class help from a teacher's aide when the class teacher judges it to be necessary: this tends to be on an irregular basis and takes the form of general assistance to the teacher with several slow learners in selected maths practice sessions. The school counsellor's initial heavy involvement has given way to periodic brief monitoring of Kerry's integration, which he judges to be highly successful socially and very successful academically and emotionally. In the counsellor's view, the Principal's efforts on behalf of Kerry and five other integrated children with disabilities constitute a major call on resources. This aside, Kerry's placement does not involve significant resource use now that the basic facilities exist.

CONCLUSION

All associated with Kerry's present placement agree that the integration program has been beneficial to her and her family and has been no great burden on the school. It is generally agreed that she should be able to proceed with a fair measure of success in regular classes throughout primary school and at secondary level.

CASE STUDY 75 - ASTRID

DISABILITY: SEVERE PHYSICAL

TOTAL INTEGRATION INDEX: 87%

TOTAL VALIDATION INDEX: 92%

The School

This school is set just off the highway, about 20 minutes drive from a large north coast town. It was built as a response to the rapid growth of the small beachside towns in this area. The school is around ten years old and is set amongst trees, a few minutes drive from the main residential area. The rooms are well designed and spacious. The large windows welcome a sea breeze. The playground is bushy and cool, but the field area is in need of further work. The classrooms are well placed on a single level, arranged around an assembly hall and library. There are ramps between the different levels. The toilets are well placed and fully accessible. There are several demountable classrooms that hold the senior primary classes at the back of the school. The school appears very much in harmony with the natural bushland that surrounds it.

The staff appears to be quite young and most come from the local area. From the extent of the resources and detail of school policies, it would appear the last principal, who resigned last year, was very organised. The new principal gives credit to her predecessor but appears very efficient in her own right. The staff, as a whole, seem friendly and relaxed.

The Classroom

Astrid's Year Two class is situated in the middle of the school, close to toilets, library and assembly hall. A small ramp has been constructed over the bump in the doorway of her classroom. It is bright and well-ventilated with carpeted floors. The wall between it and the adjoining classroom is movable. There is a shared craft area and a quiet room between the two rooms in which Astrid stores her electric wheelchair. With only 22 children in the room, there is a lot of space. Astrid sits at the back of the class at a larger table than her peers. This is necessary to accommodate her wheelchair. Her equipment is stored on shelves beside her table. The aide has a chair alongside Astrid. A group of tables with other students adjoins the front of Astrid's table, even though the height difference makes communication difficult. The room is decorated with the children's work and the children appear very familiar with the class procedures. Astrid is bought to the front of the class by the aide when the students are working on the mat.

The Teacher

Astrid's teacher is organised, efficient and creative in his approach to his students for whom he has high expectations. Every lesson observed is well thought out, inventive and he encourages his class to think. He has no special qualifications but believes in the idea of integration and is willing to have any child in his class. He realises that in the case of Astrid he has been very lucky being provided with a full-time aide. As with all the other members of the staff, he feels that he would have been unwilling to accept Astrid into his class had a full-time aide not been provided.

Astrid does not require any special preparation time on the teacher's part. He has attended courses and been well briefed on the use of her equipment and her physical care, even though these areas are usually attended to by the aide. He appears to make an effort to include Astrid in all class activities. He speaks to her as he does the other students, asks the same questions and waits a reasonable time for the answers.

All concerned feel that Astrid's teacher has been an excellent choice. She responds well to him and he is beginning to understand her speech. He has admitted that the year has taken its toll and he will be glad to hand the student over to another teacher. He commented on the fact that Astrid has been accepted as something of a "sample" student, and the continual flow of visitors and observers through the class has been very disruptive.

The Child

Astrid is a pretty little girl, severely affected by cerebral palsy. She is well cared for and bright-eyed. She is confined to her wheelchair and has extremely limited upper limb function. Astrid is fed by her parents at home and her aide at school. She has a problem with dribbling and needs to have her mouth wiped regularly. She is bought to school in the morning and collected in the afternoon by the special bus, since she lives over 30 km from the school

Astrid started her schooling at a special school for physically disabled children in the metropolitan area. When her family moved to the country, the Department suggested that her high level of academic potential made her unsuitable for the special school in town. A suggestion was made that she be enrolled in her neighbourhood school. Practical problems made this difficult so she was enrolled at one further away from home. She visits the special school in Sydney for review and specialist treatment twice a year.

Astrid spends most of her day in her normal wheelchair. At lunchtime the aide moves her into her electric chair to give her increased independence. Her time in the playground is the only time in the day that she is not with her aide. She loses between half an hour and an hour a day in feeding time. It is not believed that Astrid will ever speak intelligibly. She makes sounds identifiable as words to all familiar with her. She uses a light attached to a sweat band on her forehead to spell out words on her

Min-speak. She spells out words appropriate to her age. A printout has just been added to her equipment to allow her work to be stored.

Her aide keeps her on-task and producing work but it is felt that this would be impossible in an unsupported environment. She is functioning well within this class age group but it must be remembered that she is older than the other children in her class.

Peer Acceptance

Astrid's inability to communicate is a barrier to her social acceptance. There are a few children who are able to understand her few vocalisations but most of the class appear not to attempt to interact with Astrid. The fact that she works alone with her aide and not in the group set-up of the other members of the class, means that she misses out on the class "small talk". There is a roster of children to take her into the playground. She has stayed overnight at two of the girls' houses and has had friends to stay with her. The same group of children can be seen with her most days in the playground. It was observed that in the class there could be complete mornings or afternoons where Astrid interacted only with the aide and the teacher.

Parental Attitudes

Astrid's parents had not suggested her integration but had been impressed with the idea when it was put forward. They now consider that the advantages of this situation far outweigh its disadvantages. Astrid admits to finding it harder work than the special school but her mother comments that she needs self discipline. Her parents are hopeful that Astrid will finish her education in a normal school. They see her completing Year 12 and living alone as a young adult. There is concern in the school that their expectations may be a little too high. Astrid's mother stresses how impressed she has been with the quality and quantity of support that has been offered, both within the school and the community.

Use of Resources

Astrid's full-time aide works only with her. The school appears confident that the aide allocation will remain as long as Astrid is to be in a normal class. They are happy with the Department's response and feel that no other amount or type of support would be more appropriate. Astrid has been allocated the equipment recommended by the special school.

There is concern that, due to changes in the class sizes next year, Astrid may need to be placed in a larger class.

Conclusion

Due to the amount of support Astrid receives at present, she is coping well within the normal classroom environment. It would be very difficult for her to continue to be integrated should a full-time aide no longer be available. The teacher in this situation is fortunate in that he is not exposed to the additional time demands that accompany most other integration placements. Based on their experience with Astrid, the school has a very positive attitude towards integration.

There is an amount of opposition to Astrid's enrolment, based mainly on the large amount of money being spent on equipment and aide time (the teacher is not sure, but mentioned a figure of over $50,000 in the last year). Astrid, herself, has indicated that she preferred the special school.

Astrid has become somewhat of a display case in this area. The successful integration of a child with such severe disabilities has developed into an often quoted case study. Some feel that this may account for the ready flow of funds that the school receives. Academically, Astrid is coping and, even though she is below the level of her chronological age peers, it is hoped that she will eventually be performing at the same level. Socially, all involved agree that there are definite limitations due to Astrid's poor communication skills.

It is felt that Astrid is undoubtedly in the best social environment that money can provide. Academically, expectations are high, so it is likely that the rate of progress will be greater than in a special school. On the other hand, it is also necessary to remember that Astrid will need a full-time aide for the rest of her school life if she is to continue in a normal school. The ultimate cost of this and all the necessary equipment may well overshadow the educational ideal, as sadly it does in so many other cases.

CASE STUDY 4 - MALCOLM

DISABILITY: INTELLECTUAL

TOTAL INTEGRATION INDEX: 81%

TOTAL VALIDATION INDEX: 100%

The School

This student attends an older style, class 2 school in a seaside suburb. Although the playground area is adequate in size, it is mainly asphalt, with some sparsely grassed areas and shady trees. The primary and infants departments are at opposite ends of the same site, their pupils having separate playing areas. Because the suburb is, to some extent, physically isolated from the rest of the city, the community is close-knit and fairly homogeneous, the target child and his family being well known and accepted.

The target child's integrated situation has been significantly improved by the appointment of a new principal at the beginning of the year. Unlike her predecessor, who last year expressed reservations about the child's enrolment in the primary school, the new principal states that progression with his classmates is essential, in order to preserve his self-esteem and continue his social integration within the school. The principal's special education background has enabled her to give programming support and advice to the class teacher and teacher's aide. Besides the target child, there are two other children enrolled under the Enrolment of Students with Disabilities Policy, both children being in the infants department. One child is blind, receiving ITVI support and teacher's aide time, whilst the other child is emotionally disturbed. No integration resources have been sought by the school for this child. Another child, currently enrolled at a special school, attends one day per week for social integration in the neighbourhood school.

The principal's reservations about the Departmental integration policy centre on the lack of training of teachers' aides (special). Although she acknowledges that the teacher's aide employed at this school is experienced and competent, she believes that in situations where the class teacher, aide and principal have little expertise in programming for children with disabilities, a trained integration teacher is required to establish and maintain an integration program. Moreover, she believes that the number of students with disabilities enrolled in a school should be taken into account when the staffing formula is applied. The executive and staff at this school have a genuine acceptance of the three integrated children and a positive attitude towards the integration of children with disabilities.

The Classroom

The target child's class of 22 children is one of two parallel year 3 classes in the school. Although the classroom is small, barely

accommodating this particular class, its fresh paint, pictures and the children's colourful craft work make it bright and attractive. The double desks are arranged in a rectangular fashion, the target child's desk being in the front row, close to the class teacher. The room is carpeted and classroom equipment includes a colour television set and a cassette player.

Besides the intellectually disabled target child, there are three other children in the class who require extra attention because of learning difficulties. However, the class teacher does not receive resource assistance for these children. Every morning until recess, the target child works with the teacher's aide (special) in the music room in the 1:1 situation. Meanwhile, the children in the class work quietly on their morning academic program, the atmosphere within the classroom being relaxed, yet business-like. There are no discipline problems within this classroom, the class teacher exhibiting excellent classroom management skills (Observer Rating Scale [ORS] score of 85%). Academic Learning Time observations show that the class is on-task for an average of 63.2% of the time. However, because the target child is not in the classroom for the morning session, most ALT observations had to be done after recess, in lessons such as story-writing, where the children were somewhat less on-task than during the morning maths and spelling lessons. Consequently, this ALT score is probably less than would be obtained had more observations been possible in the pre-recess session. Classroom climate is warmer than the ORS score of 49% indicates, the class teacher being more relaxed and smiling during the more informal lessons such as story time or music than during academic subjects.

When the target child rejoins the class after recess, the class teacher uses other children as peer tutors to assist him with his work. The children are willing helpers and appear to greatly enjoy being chosen to assist their less able classmate.

The "My Class Inventory" questionnaire indicates that the children are happy in the class and are mostly friendly with each other. Although some see the class as being competitive, there is little friction or perceived difficulty with work.

The Teacher

The class teacher, with 10 years' teaching experience, is currently undertaking the Graduate Diploma in Educational Studies (Special Education) and has recently attended an in-service course on the Integration of Children with Disabilities. Because she was concerned that the best possible curriculum be developed for the target child, she was granted two days of release time to visit an IO support class and three special schools in order to obtain advice on programs and material resources. Consequently, she has the expertise, not only to construct a highly appropriate program for the target child, but also to instruct the teacher's aide how to implement it.

The class teacher's approach to teaching is highly structured (ORS score of 86%), well organised and efficient. A lesson plan is invariably presented and she is actively involved with the students

during seatwork, giving them feedback and correcting their work. Whilst she does not use grouping for instruction in academic subjects, she does give individual attention to the slower children in the class, including the target child.

The class teacher volunteered to have the target child in her class this year. She says that she has been happy to see the other children so ready to assist him in the classroom and sees the slowness of his achievements as her only difficulty.

The Child

This child, the younger of two brothers, is moderately intellectually disabled. He has always attended this school, having been enrolled in the pre-school in 1982. During this year, he spent part of his day at the Special Education Centre pre-school and part of this school. The following year, he was enrolled full-time in the regular pre-school, proceeding to kindergarten in 1984. Because he has always attended this school, he is well known and accepted by the children and staff, his happy nature and usually good behaviour undoubtedly contributing to this ready acceptance. Although he is now 10 years old, he is small for his age, and does not appear out of place in this year 3 class. However, some signs of early puberty are causing concern for his mother and class teacher, prompting their investigation, earlier in the year, of an IO support class placement for him, where he would be with older children. Such a placement has since been considered inappropriate because of the behaviour problems within the IO classroom.

Every morning for the two hours before recess, the target child works with the teacher's aide, who has been involved with him for the past four years. Experience has taught her the best way to obtain co-operation and effort from him, as she teaches the basic academic program devised by the class teacher. The principal has involved herself in his program by writing stories based on his daily "news" session for him to read. His maths and reading are oriented towards living skills, using "shopping" exercises during maths and the Cypress Kit for teaching community reading. In the withdrawal situation working 1:1 with the teacher's aide, continuous timing observations show that he remains on-task for an average of 74.9% of the time. He frequently tries to divert her attention from his assigned task, and is reluctant to tackle new work. However, the teacher's aide ensures that he is successful, positively reinforcing good work and on-task behaviour. A gross motor program is an important part of his curriculum, as his disability is highlighted by his poor co-ordination. Once a week two infants children join him in this program.

The target child rejoins his class just before recess for daily P.E., in which he participates by modelling the movements of the children around him. For the remainder of the day he is part of the class, insisting that he be given the same work as the other children. The class teacher, or children appointed by her, assist him to complete the assigned tasks, adapting instructions to his level. ALT observations taken during lessons such as story writing show that he is on-task for an average of 41% of the time. Although his attention frequently wanders when he is not receiving

individual attention, he is usually well behaved in class. He thoroughly enjoys subjects such as music and story time, and actively participates in craft and sport, often assisted by his classmates.

Peer Acceptance

Sociogram results indicate that the target child's popularity has not declined since his progression to primary school. As for last year, he obtained the highest score of any child in the class, a tribute to his happy and affectionate nature. Playground observations indicated that this year he will play happily in a small group of children, whereas last year he could cope with only one friend at a time. Should he ever be alone, he will soon be sought out by his friends and encouraged to join their game. His mother confirmed the extension of his friendships beyond the school. His friends frequently come to his house to play, whilst he visits them and is invited to their birthday parties. Recently, he has joined the local CEBS group. His social integration within the school and community is seen by all involved personnel as being highly successful.

Parental Attitudes

The child's parents are very happy with his overall progress and with the quality and quantity of support provided for him. This year his mother seems more relaxed and less apprehensive about the future, being less concerned with academic achievement than with his social integration and self confidence. She would not like him to repeat a year, preferring him to remain with his friends. Whilst she is hopeful that he will be able to remain at this school throughout primary school, she is concerned that he may become a burden for the teachers, occupying a disproportionate amount of class time. Whilst last year she foresaw an S.S.P. placement as being necessary in the secondary situation, this year she considers that an IO support class in a regular high school will be more appropriate for him.

Use of Resources

The principal applied for and was granted two days of teacher time so that the class teacher could visit three special schools and an IO support class, in order to obtain programming advice. Time was also allocated for her to attend an in-service course on the Integration of Children with Disabilities. The teacher's aide was also able to visit the IO support class and one of the special schools. The Regional Integration Officer made funds available for these visits, which provided valuable programming assistance, and reassurance that the child's curriculum was appropriate.

The IO hours per week of teacher's aide (special) time is Commonwealth funded, and this year no submissions have been made for material resources. However, consideration is now being given to the purchase of appropriate computer software, so an application for funds will probably be made.

Both principal and class teacher express the view that the significant difference between the child's academic level and that of the class makes the withdrawal situation necessary for academic lessons. Presently he is functioning academically at a late kinder/early year 1 level.

CONCLUSION

Progression from the infants to the primary department has resulted in an improved integrated situation for this child.

Significant factors in this improvement have been a newly appointed principal with a background in special education, and a particularly effective class teacher currently undertaking postgraduate studies in special education, both of whom are sensitive to the special needs of the target child. Although the gap between his academic achievements and those of his classmates has widened, his integration within the classroom has improved. He now works on the same subject using the same materials as his classmates, his class teacher individualising instructions for him. All concerned personnel believe that the child's integration is very successful, and that he should continue to attend this school throughout his primary years.

CASE STUDY 19 - DAMIEN

DISABILITY: MULTIPLE

GRADE: 6

TOTAL INTEGRATION INDEX: 87%

TOTAL VALIDATION INDEX: 100%

The School

This metropolitan north primary school is pleasantly set among extensive leafy grounds on one level so that it provides reasonable access for students with physical disabilities. Ramps have been erected to some classrooms, since all are elevated, and two other children with physical handicaps have already been integrated into the school. However, neither Damien's classroom nor the computer room have had ramping, so Damien needs to negotiate the steps, with occasional assistance from his peers who hold his sticks. It is extremely fortunate that a staff toilet is situated in close proximity to Damien's classroom. In this way his mother can come to school at the beginning of lunch and catheterise him quite unobtrusively, without using very much of his lunch hour. Indeed in the entire observation period, this parent-child interchange was never observed.

It was evident, both from the ease with which he was enrolled into the school and informal discussions with principal and staff, that the school has a strong commitment to integration. One student who became blind while attending the infants' department has been well maintained in the regular class on itinerant support services which are also used for a partially sighted child in year 3. Two children with cerebral palsy are also well integrated, one in the primary and one in the infants. Damien, for the first time in his school history, is now able to join into school sport, usually with teacher aide assistance. However, whenever his class teacher sees that the sport can be modified to suit his needs and the teacher in charge has not seen this possibility, she makes sure that it occurs so that Damien is not excluded. To his mother's great delight he took part in the school cross country run, assisted by the teacher's aide, and although it was not possible for him to complete the whole circuit, he was awarded a certificate of merit. If this situation is compared with that of his previous school, where he had to go home on all sport afternoons, it is clear to see how accepting of disabilities is his present school. While Damien is not going on the mid-year camp, because of his toiletting difficulties, several other children from his class are also not attending, so his atypicality is not accentuated. However, his mother is talking about volunteering for the end of year excursion to Jenolan Caves, so that there is every possibility of his joining his peer group. While the principal's responses to the attitude scale did not indicate a markedly more tolerant attitude towards integration than the mean of all principals surveyed, discussions with him revealed both his commitment and his confidence in implementing the policy with regard to selected disabilities. This

commitment and confidence has percolated to the whole staff and particularly to his class teacher who foresaw no great difficulties with his inclusion in her class.

The Classroom

Damien's classroom is situated together with one other room in a separate building which is somewhat removed from the administration block. While airy and bright with children's art work, it is nevertheless rather less cheery than some of the more modern carpeted classrooms. Students sit in rows and move only when reading activities split the class into 3 social groups. The appearance of the classroom is thus rather formal, but as there are only 20 students in the classroom and the class teacher infuses humour and tolerance into the class, there is no doubt that a warm atmosphere is generated. This is a streamed remedial class which allows for a small number of students and was felt to be an ideal placement for Damien who has a mild intellectual delay in addition to his spina bifida. In this classroom there are 5 children who are on E.S.L. services, and an integration aide who is employed for 1.5 hours per day assists the teacher and the whole class as well as Damien. In this way, although Damien's maths skills are certainly the lowest in the class, he certainly does not appear atypical as the general spread of abilities is rather narrow. Furthermore, as the integration aide is used to assist the teacher generally and to work with small groups rather than devote herself exclusively to Damien, this further normalises Damien's integration situation.

The Teacher

Damien's teacher has had 12 years teaching experience and has undertaken no specific course or training in special education. She was previously assigned the top 6th grade class and has found that she has had to vary her teaching strategies quite dramatically in taking a remedial 6th class. However, she finds that this is a very pleasant class, and because of its size and homogeneity, she experiences no behavioural problems. This could also in part be associated with her warm tolerance and relaxed style of teaching. The quantitative results from the classroom observations appear to substantiate the more qualitative observations as the scores indicate a reasonably high level of child satisfaction and a low degree of difficulty (as measured by the My Class Inventory Schedule), which is suitable for students' success in a remedial class. This is further borne out by interviews with individual students who all indicated great satisfaction with the class. The target child, in particular, who had been rated unsuccessful in his previous integration placement, said that he would like to repeat the year in this teacher's class because it was so enjoyable.

While this teacher was not specifically consulted about Damien's placement in her class, she was readily agreeable to the idea, especially when told of his difficulties at his previous school. It was also made easier for the teacher since she was to receive assistance from a teacher's aide and her class size was reduced to 20. There is no doubt that the perceived success of Damien was in

no small measure associated with these three factors: a) teacher's tolerance, b) the presence of a teacher's aide, wisely deployed, and c) the small remedial class which minimised Damien's atypicality in terms of basic skills. As the need for grouping is considerably reduced in a streamed class, all the instruction in basic skill areas and all seat work were conducted in a whole class manner. Even reading groups were divided on a social basis, with the teacher's aide being used to assist one whole group rather than the target child. This approach no doubt lent a great cohesiveness to the class but some children with language difficulties and Damien, particularly because of his difficulties in maths and comprehension, were undoubtedly disadvantaged to some extent by the lack of individualisation. This was countered to some extent by additional 1:1 support given to Damien by the teacher's aide in mathematics, although no modification was undertake in reading comprehension. If any constructive suggestions about this teacher's instructional style can be made, it would be to suggest some form of grouping, particularly for the lowest achieving students, directed by the class teacher and assisted by the integration aide. Some peer tutoring by the two most able students could also possibly be organised. This would also raise the independence level of the students which tended to be rather low - although in a remedial class, responsibilities tend to be more teacher-initiated than child-initiated as less contract work is done.

Other aspects of instructional style, such as structured teaching techniques and total classroom management, were particularly high (73.7% and 75.8%) respectively. Moreover, in terms of individual independence this teacher has been an excellent choice for Damien. She has rejected the notion that he must be treated as an exceptional child which contributed so much to his poor peer acceptance in his last school. In the first place she has reduced the 1:1 role of the teacher's aide in regards to Damien, and used her both naturally and well as a whole class assistance. Secondly she has encouraged Damien's physical independence by making him less dependent upon his peers in the classroom and encouraging him to take part in school sport and whole-school activities, such as the cross-country run, with sensible modifications. At this point information about the extent to which Damien should be pushed physically would be extremely helpful to the class teacher, so she could get some positive reinforcement about the remarkable degree of independence which she has achieved in this child, and the great success which she has made of his integration placement. Grouping might also increase the low time on-task of both class and target child.

The Child

Damien, is an attractive presentable child, who needs sticks for walking, has some fine-motor inco-ordination, and a slight speech defect, which is more noticeable in tone and modulation than in articulation. His physical handicap necessitates daily catheterisation which his mother performs discreetly every lunch time in the staff toilet adjoining the classroom. His reading comprehension, ability to handle maths problems and general computational skills are in the lowest centile, and he is almost

two years older than most of the other class members. It was this combination of factors which made his integration placement so difficult in his previous school.

In terms of basic skill subjects, Damien is average for reading accuracy, probably lowest in the group for reading comprehension and one of the weakest in mathematical computation, particularly in the area involving decoding word problems. His teacher realises that his academic performance needs assistance in these areas and does use the teacher's aide a couple of times a week to assist Damien, particularly in mathematics. However she could really benefit from some trained assistance in the best way to deploy the aide to help Damien improve the areas at which he is weakest. Nevertheless it must be said that, even in whole-group instruction, the back to basics approach pitched at a lower level and the structured instructional strategies used by the teacher appeared to be more appropriate academically than last year's unmodified curriculum. When examining Damien's situation in terms of difficulty level, it was mainly easy to medium. Damien's mother also expresses a much greater level of satisfaction with his academic performance than she was able to last year. She feels a great deal of satisfaction that, as the class work is at a more appropriate level, Damien is not 'put down' in the way he was last year, so that his self-esteem has risen. Similarly he is encouraged to do things such as 'running writing' as do the other children, rather than not being permitted to do it as happened last year.

Peer Acceptance

In his new environment with a caring headmaster, staff and class teacher, Damien's placement from a social view point can only be regarded as successful. Although still rated by the children on a sociogram as being the least popular member of the class, interviews with individual students, teacher ratings of popularity and playground observations indicate that he is never isolated, not considered a nuisance in any way and very well accepted by peers from another class, with whom he also has an out-of-class association. His mother, also, is delighted with the degree of his social acceptance. An interesting observation at the early stage of his integration was the propensity of the three handicapped primary students to spend recess and lunchtime together. The staff were not pleased with what they considered atypical associations in a regular school and were considering an intervention when the association ended spontaneously. In his previous school, playground activities, in which Damien was an isolate, were not subject to observation and intervention.

Parental Attitudes

During the parental interview it became quite obvious that Damien's mother was delighted with his new integration placement. She feels that she is welcome at any time at the school, but because she is satisfied that the academic curriculum is suited to Damien's level of achievement, she doesn't need to be intrusive. She is also extremely pleased with his social acceptance, and particularly with

the way in which he has become integrated into sports activities. At his previous schools he was excluded from all sports days and used to go home. In fact, his mother can no longer take him to orthopedic appointments during school hours because there is no way that he would miss the sports afternoon. In summary, to describe the success of Damien's current integration placement it is probably best to quote his mother who said, "I feel that all the work I've put into his integration has finally been worthwhile".

Resources

To assist his integration, Damien's teacher has been provided with a teacher's aide for 7.5 hours per week which has been divided into 5 blocks of 1.5 hours each. Damien's teacher uses this assistance in a number of ways, rather than as a 1:1 assistance for Damien. Her use of this position which includes classroom aide duties and small group assistance is in accordance with Metropolitan North's guidelines for teachers' aides. As a result teacher, classroom and child benefit from such a disposition of duties since all profit from the extra time allowance. In addition the target child himself is less stigmatised since the aide is not seen as being provided solely for a child with disabilities. Damien's teacher uses the aide specifically to help with sports activities, occasionally assist Damien with maths, with fine-motor tasks and to take charge of a small reading group. While the teacher feels she doesn't need more aide time, she does feel that she would like to direct the time at which the aide is available. In summary, the use that is made of the classroom aide is very much more appropriate than in Damien's last school where she was used solely in a 1:1 capacity. However, the guidelines under which integration aides are employed have never been articulated clearly and the teacher is unaware of the most appropriate means of her deployment. Furthermore Damien's areas of most immediate need, his poor reading comprehension and verbal problems are not being addressed because his curriculum still needs modification. If his teacher could get assistance from a specialised teacher such as a support teacher, who could help the teacher modify the curriculum and let the aide implement it, Damien's academic achievement might be even more successful.

CONCLUSION

There is no doubt, from discussions with principal, teacher, aide, parent, child and peers that Damien's integration placement is an eminently successful one. Although some suggestions have been made during the case study analysis to maximally improve his academic performance, the streamed remedial class in which he has been placed and the teacher who directs it, have worked overwhelmingly to Damien's advantage. It is interesting to note that this child, who was also part of the 1987 pilot study was categorised as a non-successful integration candidate in 1987. While some shortcomings were revealed in the interaction of school, classroom and child, it was felt that the dual handicap of intellectual and physical disability was too much for a regular school to handle even with a teacher's aide for fifteen hours. However, in this follow-up case study it is obvious that the same child, with the same disabilities

and with a teacher's aide for half the time he had last year, has been successfully integrated into a different school environment. The factors that account for this success are complex, but they support the hypothesis that it is not disability per se which necessarily militates against successful integration. The combination of a tolerant, energetic and confident principal, a staff in whom the ethos of integration has been firmly established, a sympathetic and dedicated teacher, a small remedial class with a compassionate peer group, and last but not least good use of available resources have produced an excellent integration placement for a gentle but multi-disabled little boy.

CASE STUDY 84 - MORRIS

DISABILITY: SENSORY

GRADE: 11

TOTAL INTEGRATION INDEX: 99%

TOTAL VALIDATION INDEX: 100%

The School

The school is nearing completion, and several additional wings are currently being planned to be built and completed in the next few years. The student intake is also increasing yearly, and by next year there will be 700 students which is considerable seeing that it is a senior school for Year 11 and 12 students only. The atmosphere is more like that of a small campus for further studies, rather than a school. A feeling of camaraderie prevails among both teachers and students.

The principal, who has had several students with different disabilities at the school over the last years, shows great compassion and interest in their well-being and educational progress. He is well-informed and extremely interested in the progress of the target student, Morris, whom he sees as an example of someone who can overcome a handicap extremely successfully, both academically and socially.

The staff echo the principal's philosophy, attend in-service courses when possible and keep in regular contact with the itinerant teacher of the hearing impaired.

The Classroom Environment

Morris is performing extremely well academically at school. In all his subjects, he is in the top ability groups and has chosen electives which will be suitable for university entrance level. The emphasis he has chosen leans towards technical subjects such as maths, technical drawing, science, physics, rather than the language arts.

All Morris's teachers are fully aware of the level of his impairment. They make a conscious effort to face him when speaking, write important information on the board whenever possible and check to see that he is following instructions. Besides this, he receives no preferential treatment and has to compete at an advanced academic level.

English is perhaps the one area in which Morris doesn't excel. Although his vocabulary is good, the teacher feels he has some gaps in his knowledge and ability to express himself in terms other than the literal. Although his speech is adequate and he is usually confident in expressing his opinion, he sometimes has some difficulty in following a more complex discussion in class.

Morris's lip-reading skills are excellent. What he fails to understand, he usually makes up for by copying from the student's work next to him. He relies on this assistance from his friends but the help is often reciprocal - Morris is able to assist others in computational skills and problem solving.

All the teaching observed (with the exception of physics) seemed to be of a high standard academically, well-structured and briskly paced, geared to cover the large volume of work to be completed before exams. Discipline was considered a problem only in physics classes when little interaction with students was observed since the lesson consisted of written examples to be copied.

The Student

Morris is a good-looking, talented 16 year old. He is popular amongst both sexes and has achieved an impressive amount both in and outside of school activities. Although his itinerant teacher, as well as Morris, reported some teasing and a few settling in problems at the beginning of high school, it is now practically non-existent. Morris uses his FM system during maths due to the insistence of his maths teacher (also Year Co-ordinator). He is reluctant however to use it in most other classes because he feels it sets him apart from the other students.

He has an extremely good relationship with his itinerant teacher who prefers to see him at lunch or after school rather than disrupt his classes. Morris has also participated at in-service courses for the hearing impaired provided by the Regional Education Office. His ability to stand in front of a large adult audience and talk about his impairment with humour and maturity was extremely impressive. As his itinerant teacher has mentioned, he seems to have come to terms with his impairment and is now attempting to develop himself to his maximum potential.

Peer Acceptance

Although Morris suffered some teasing in his earlier years at high school, he is now regarded as a well-accepted member of the class. He relies on the help of a few fellow students to explain instructions or information he might have missed hearing. One friend in particular sits next to him in his more demanding subjects, such as engineering science, and takes most of the responsibility of helping and sharing his work with Morris. Teachers report that this at times places some strain and extra responsibility on the student concerned, but he seems willing to continue.

Morris is chatty and active in class, without being too boisterous. He has a group of friends with whom he sits at recess and lunch, appearing to be particularly popular with the girl students as well. According to Morris, he meets several of his friends socially outside of school and sees one of his problems in this context to be the inability to take his own telephone calls at home and maintain some privacy in his life.

He has belonged to youth movements, as well as church groups, but until recently has spent most of his free time with his family. He mentioned that he was beginning to feel the need to be more independent outside his family circle and participate in social activities with his friends, such as ice skating, etc.

Family

Morris comes from a close-knit family of four children. His older brother, who completed school about two years earlier, was remembered by the teachers as being a "slow learner", although he did complete Year 12. Morris, in contrast, despite his hearing impairment, is considered to be excellent academically. His younger siblings, both at primary school, regard him, according to his mother, as a role model.

Morris's mother and father are extremely involved in his schooling. Although his mother takes the more active role in his day to day life, she feels that Morris's father is highly supportive and equally involved in all decision making about his schooling.

They are satisfied that Morris had been provided with good educational opportunities, and also with the high standard of itinerant support which has been given him.

As parents they believe that the family comes first and are very involved and protective towards their children. Morris's mother strongly believes in early intervention, once it was discovered, at the age of about three, that Morris had a severe hearing loss which has deteriorated progressively over the years, great care was taken to ensure that after attending a special preschool, Morris should be placed in the most normal environment possible. Subsequent schooling all took place in the mainstream supplemented by specialist support in speech therapy and itinerant teaching. His mother mentioned that the itinerant service which had been decentralised is now going to be centralised under one body. She voices concern about the deterioration in services which she believes is currently occurring.

Finally, after Year 12, Morris's parents hope that he will continue with tertiary studies of some sort, although they aren't as ambitious as Morris, who hopes to attend university and pursue a career in a field such as civil engineering or architecture.

Resources

The resources currently being offered Morris are the twice weekly visits by the itinerant teacher of the hearing impaired. Morris's itinerant teacher seems to be extremely involved and committed to teaching him. She has good liaison with all his teachers and is efficient in sorting out any difficulties which might arise for either Morris or his teachers.

Morris is encouraged to use his FM system which, as mentioned earlier, he is reluctant to do. Besides this, the other resource available to Morris is in the form of a yearly disability grant

which he receives from the Regional Education Office. This is to be used for either equipment, tutoring or providing other facilities, but as yet no decision has been made as to how to spend it this year.

CONCLUSION

A combination of factors seem to be responsible for Morris's highly successful integration in his school. These are Morris's excellent academic abilities, his stable and extremely likeable personality, the large amount of input and stimulation provided by his parents and finally, good educational opportunities, support services and a happy school environment.

CASE STUDY 14 - ANDY

DISABILITY: LEARNING DIFFICULTY

GRADE: 3

TOTAL INTEGRATION INDEX: 90%

TOTAL VALIDATION INDEX: 100%

The School

This school is about 35 years old and is in an established suburb in the near west. The community here is rather mixed racially and there is a high percentage of children from non-English speaking homes.

The principal has been at this school for less than 2 years and is very sympathetic to children with disabilities, and supportive of integration. He has taught in special schools previously and has done some post-graduate studies in special education. Three children with disabilities have been enrolled at the school in the last eighteen months, including one with learning difficulties, one with spina bifida (mild) and one with emotional disturbance. The principal, however, is selective as to which children with disabilities he accepts, based on whether the school can provide the necessary resources and/or has adequate facilities. A child with multiple disabilities had recently presented for enrolment at the school but did not enrol because the toilet facilities were unsuitable for a wheelchair. Other factors such as the principal's concern whether she would "fit in" with the sixth grade class were also significant in the final decision.

The Classroom

The children in this class are those who do not work independently and were not considered suitable for a composite 3/4 class. There are a few children with behaviour problems in the class, because the school principal regards this teacher as strict and good at sorting these children out. The class works as a whole although the children with low level maths skills all sit in the front row. This is mostly a convenience factor so that the teacher or resource teacher can assist them more easily. The resource teacher comes twice a week for 30 minutes and 45 minutes. She works with the low maths group primarily although she moves around the room to other children when necessary.

The atmosphere in the classroom is quiet and generally pleasant. The children rarely speak above a whisper and interactions between children are minimal. The teacher expects a high standard in classroom behaviour.

The Teacher

Andy's teacher has been a teacher for 34 years although she left during that time to raise her family. She returned to teaching 8 years ago and has been at this school teaching third grade all the time. Her manner is firm and slightly cursory. Although the children seem happy in class, their relationship with the teacher seems to show a slight fear of the teacher rather than a warm bond. The teacher is slightly deaf and one has to speak rather loudly to her. This disability sometimes causes problems during lessons when the teacher either doesn't hear what a child has said or hears it incorrectly. This was observed to cause confusion and on one occasion the child wept silently for several minutes. Other children, although aware of what happened, did not bring the teacher's attention to it.

The teacher prepares her work on the blackboard before school commences and she follows a routine that the children know. She has a very structured approach giving a lot of guided practice on new or problem concepts.

The Child

Andy was a premature baby whose co-ordination was significantly delayed at preschool age. He was born overseas and there were no facilities such as preschools or special schools, so Andy attended the Red Cross to help him with his co-ordination problem. He is a very determined child and while at the Red Cross, he developed severe behaviour problems such as breaking windows. He attended the Red Cross for 2 years and, according to his mother, this early help made it easier for him to manage in a regular class. The family moved to Australia where Andy was accepted into the Macquarie University Special Education Centre School. From day one at the Centre, Andy's behaviour and learning problems improved significantly.

At school, Andy is a model student. He does not speak to classmates during lessons generally and in the playground he was observed being with either one other boy or a small group. He is a reserved child and his lack of co-ordination is still evident when he runs or tries any ball skills.

Andy's teacher feels that Andy's main problems are his inability to organise his possessions, and his difficulty in comprehending instructions. At each lesson change, Andy cannot find the right book. He does not hand in his work to be marked but keeps all his books under his desk. His books show a complete lack of organisation as he will turn one, two, five or nine pages and continue writing. He constantly begins writing on a new line for no apparent reason, even in the middle of a sentence when there is still room left on the line. Andy generally follows the same curriculum as the rest of the class in maths, and other academic subjects. His reading comprehension has greatly improved at the last test and his oral reading is above the class average.

Although a model child (as far as behaviour is concerned) at school, according to his mother, Andy is the complete opposite at

home, running wild and demanding his rights. His mother is quite happy with this situation.

Peer Acceptance

Andy is well accepted by his peers. He has started to mix with the "naughty" boys and enjoys mixing in a small group. Probably because of his co-ordination problem, Andy does not participate in handball but usually walks around the playground with one or more boys, occasionally having a wrestle or a series of "karate" kicks (Andy learns karate).

Parental Attitudes

Andy's mother is ecstatic at his progress to date. She believes that Andy has learned how to socialise with other children by being at this school. Although she is aware of Andy's academic needs, it is very important to her that Andy is treated the same as the other children at the school. She spends a lot of time with Andy every day, helping him with school work but Andy doesn't seem to resent it. Last year, while Andy was at the Special Education Centre, the school provided a teacher's aide to be with him during his one day a week at the school. It was noticed that Andy tended to regard the aide as his personal "slave" as she picked up after him. This year this support was stopped as it was thought to be detrimental to Andy's successful integration program. Andy's mother is happy for him NOT to have extra help, as long as he is coping with the work. She is happy for him to be like the other children.

Andy's mother has always believed that Andy would eventually be fully integrated, but she did not think it would be as early as it was. She is thoroughly satisfied with the school, principal, teacher and with Andy's progress, academically and socially.

Use of Resources

The school requested and received teacher's aide support for Andy when he began attending the school but this resource has since been discontinued because it was thought to be detrimental to Andy's overall integration success. Andy does not receive any individual support but is in a group of low level maths students who receive assistance from the resource teacher twice a week for 30 minutes and 45 minutes. During this time the resource teacher reads over instructions particularly in geometry and re-reads test questions in maths to him individually as he falls behind in speed.

CONCLUSION

Andy's transition to a regular class is considered to be successful by his mother, his teacher and his principal. He is coping with the work required of him and the teacher is aware of his problems in organisation, following instructions and physical co-ordination. His mother has not involved Andy in any additional services, tutors or therapists because she wants him to adjust to the school without

other pressures to complicate matters. Socially, Andy seems to be able to relate positively with his peers and has been accepted. Although the classroom climate is fairly strict, Andy's mother feels that it has been good for Andy as it has instilled good classroom behaviour into him and he has worked well this year.

CASE STUDY 27 - WANDA / DEVLIN

GRADE: SUPPORT CLASS (P CLASS)

INDEX OF SUCCESSFUL PLACEMENT - WANDA: 87%

The School

This unit consisting of two classrooms, toiletting facilities and a therapy room has been added to the side of a very new school located in the metropolitan south-west region. The host school is virtually on a level site and the unit, placed at the back of the existing building is easily wheelchair accessible. There is one small slope that the unit children must negotiate between their classrooms and the playing area/regular classrooms, but there are generally many eager capable hands to help push the wheelchairs. As both regular school and unit are new, all rooms are bright, airy and carpeted, making an attractive and cohesive impression, although one of the unit teachers did express the opinion that the unit could have been better placed in the middle of the main school rather than at the back.

The unit has been designed to accommodate preschool, infants and primary school children who, until 1988, were attending a special school for the physically disabled. One classroom, taught by a teacher in her first year out of college, contains preschool children on a part-time basis, kindergarten and year 1 children attending school full-time. The other classroom, in which the two target children are located, contains 2 second grade children, 2 fourth grade children, 2 fifth grade children, 1 sixth grade and a new child from Vietnam whose academic levels have not yet been fully assessed.

This unit for physically disabled children is dissimilar from other metropolitan units for physically disabled in three main ways. In the first place, the children who attend it do not have to travel too far from home. Other units which service children from western areas are to be located at an appropriate school in the western region. Second, it contains both infants and primary children who will stay in the one location until they can transfer to a high school support unit or are found to be capable of full mainstreaming at their nearest neighbourhood school. And last, because it only contains two classrooms there is not an executive teacher supplied to the unit and its day-to-day running is the responsibility of the assistant principal of the primary school. All of these three facets will be discussed at length later in the case study.

As in the case of other metropolitan support units, the decision to relocate the special school was a joint departmental/voluntary organisation one. The choice of this particular school was facilitated by the principal's positive attitude and the accessibility of the host school itself. Intensive preparation of the school for the addition of the unit was undertaken and all persons interviewed indicated that this preparation was an integral part of the unit's obvious success. There were some comments from

the general staff that they felt that the location of the unit was not negotiable and they felt alarmeded in the beginning, but for the most part, these fears appear to have been allayed. While the department provides the two teachers and the two aides-special, the Health Department provides a physiotherapist who is there almost full-time, a part-time occupational therapist and a therapy aide, which constitutes a unit staff of seven.

The Classroom

The primary unit in which all of the observations were undertaken is spacious, airy, carpeted and all children sit at their own desks, which are not arranged in any uniform manner in the classroom. Thus one child works in a corner away from the blackboard, the two infants children sit near each other, the two fifth graders sit in different parts of the room, one sitting sideways to the board and one sitting away from it altogether. As each of the children is mobile, either because of their electric wheelchairs (4), or because they can walk unassisted (2), they can usually attend to their own needs in the classroom such as getting their materials organised, going to therapy or going to a mainstream class if this is applicable. An aide toilets the children whenever this is necessary but there do not appear to be timetabled slots for toiletting as was evident in other support units.

Integrated Activities

An intricate integration program has been arranged by the Deputy Principal for the primary unit children. Everyone of the children in the unit is involved in some form of integration within mainstream classrooms. For example Wanda - one of the target pupils who suffers from brittle bone syndrome but has virtually normal upper limb function has been integrated in a mainstream fifth grade for language since Term II and maths since Term II. While this represents the greatest amount of academic integration from the unit, another 4th grade child with good upper limb function has been integrated into language classes and is about to be mainstreamed for maths. The second target child, Devlin, who has cerebral palsy which involves very poor upper limb function and poor speech, has been integrated into a fifth grade craft class, library and scripture class, but at the moment, his disability is considered too severe for more academic mainstreaming. The other children in the unit also attend library, scripture and sport with the children from the regular school and the possibility of more integration is continually being considered by the Assistant Principal. One problem that could be mentioned here is that to actually borrow books in the library, some steps must be negotiated, so the unit children in wheelchairs are never able to select their own books. As far as social integration is concerned, it is proceeding extremely well. Wanda is always surrounded by friends at playtime and lunchtime, who come down to the unit to push her up to the playground or tuckshop and this happens to a greater or smaller extent with the other children. Devlin, whose speech is much more atypical is not as sought after but a reasonable amount of social integration has also been observed for

him. There is no doubt, however, that impaired communication, unless its implications are well explained, arouses more reservation among regular children and teachers than does straight physical handicap. Thus, a child suffering from cerebral palsy where upper limb and vocal function has been impaired needs both a speech and occupational therapist to explain to mainstream personnel the best methods of interaction. This is an area to which more time could satisfactorily be devoted both in the classroom and in the playground.

The Teacher

The teacher of both the target children, works solely in the primary unit class, assisted by a teacher's aide and supervised by the Assistant Principal. The Assistant Principal has arranged that the aides for both the infants and primary classroom rotate so that they know all the children and both the teachers. The primary teacher who has had 3 years of teaching experience in a special school, but has never taught a regular class, elected to come from a special orthopedic school to teach at the unit and has thus spent considerable time with physically disabled children. The infants teacher has only just graduated from College and the unit position is her first placement. Neither of the teachers has had any special education training in their coursework. Within the unit complex a physiotherapist gives individual treatment to all the children, and assists the teachers whenever necessary, not only with consultative advice but also with assistance in the classroom whenever necessary. Although a Health Department employee, she manages to fit in well within the educational requirements of a school environment. The occupational therapist, who has not been there since the inception of the unit and whose profile in the unit and school is much lower, has not yet been able to integrate her role as a health department employee within an educational framework.

The primary teacher has co-ordinated her timetable so that academic lessons are held in the morning for those children in the unit to coincide with those children who are mainstreamed for academic activities. So she typically has two grade 2 children, one grade 4 child, one grade 5 child and a slow/learning child in grade 6 in her room between arrival time and 10am, when one mainstreamed child returns, and 10.30am when Wanda, the target child, returns. During the observational period, the children work from worksheets which are not always geared to the individual's level of acquisition. Each day, as a child experiences problems, the aide or teacher helps with the problem in hand, but the base level of the children does not seem to have been assessed so that they can learn the concept, practise fluency, and consolidate maintenance. As a result, particularly in maths, children keep asking for assistance and most of the teaching time is devoted to this activity. For those children who do maths with the mainstream, little attempt has been made at co-ordination, which probably needs to be programmed into the timetable. Thus, the mainstream teacher acquires a unit child, (in this case Wanda), without a sound knowledge of her concept mastery and the unit teacher no longer feels that maths tuition for that child is part of her role.

Although it would be difficult logistically, there must be a more defined role for the unit teacher when her children are academically integrated. In the first place, she must be aware of what concepts the mainstream is tackling and prepare her students for them. She must then initiate the mainstream teachers into the weaknesses of her children because whenever a child from a special class or school is integrated into an age-appropriate regular class, he/she will be undoubtedly behind the level to which the regular teacher is directing her lesson, unless the regular class children are grouped for concept acquisition. Thirdly, in the trade-off between regular and unit teacher the latter could act in a resource role, helping not only her own student but the three or four children within the regular class who will generally be having difficulties with maths. This role would blur the distinction between special class/regular class, special teacher/regular teacher and increase the acceptability of each. For such a role to be successful, however, the unit teacher needs to be a well-trained, structured teacher with the ability of a resource teacher to team-teach when appropriate, or to withdraw if necessary. While this unit has the assistance of a dynamic, committed co-ordinator from the mainstream with special education experience, it is progressing extremely well. Its progress could be enhanced considerably if the teachers appointed to these units were aware of their role and were appropriately trained for it.

The target children's teacher, who has had no special education experience, has previously only taught in a special school. She has had no regular class teaching experience, and feels that she has learnt her skills on the job. On the Observer Recording Scale she emerged as fairly low among the sample of teachers with regard to classroom climate and lesson structure, although because she rarely gives group lessons in academic subjects, the categories on the ORS are less applicable. However, even comparing the target child's time on task in the unit and the regular classroom, it is obvious that Wanda's engaged time and appropriate difficulty level is greater when she is in the mainstream classroom. This has always been a problem for the most efficient student in a class of more handicapped and less academically capable children, and it is very encouraging that Wanda is able to join with non-handicapped peers in academic activities. As has already been mentioned before it would be advantageous for both mainstream and unit teachers to consult on Wanda's level of acquisition so that concepts are pitched at the correct level and any resource assistance she needs can be provided. As for Devlin and the other unit children whose academic and life skill needs are being met in the unit, there should be a curriculum for each child prepared perhaps by the teacher, the parent and the unit co-ordinator, defining short term and long terms aims in all areas and there should be accountability to see that those aims are being met. Therapists and aide could facilitate the child's independence so that a 1:1 need not be constantly necessary. In the same way a learning program geared to a child's level will also increase independence and time on task. When social studies classes are being conducted even in a small unit, it appears that not all children from grade 2 through to grade 6 can benefit equally from one lesson - some form of grouping strategies must be employed. It would seem that the skills employed by teachers in a 1 teacher school blended with technological assistance from therapists experienced and interested

in the educational furtherment of their clients would produce the ideal model for a unit for physically handicapped children attached to a regular class.

The teacher in whose class Wanda is integrated for mainstream language and maths is a well-organised structured teacher whose morning activities are divided into 3/4 hour of maths followed by 3/4 hour of different reading activities. During the observation period the students were not grouped for maths but were organised into 3 reading groups with Wanda being in the middle one. While the ORS indicated that total classroom climate was only average, lessons were highly structured and classroom management was excellent so that concepts were well paced and engaged time was high. Thus Wanda spent over 70% of her time on task in the mainstream classroom even though some of the concepts were new to her and would need reinforcement. There is no doubt that the regular teacher accepts Wanda, although she feels she was not a party to the integration decision and would like to have had more input from the unit co-ordinator and unit teacher. The teacher has assumed responsibility for her maths and reading but because Wanda has obvious areas of weakness in the former activity, she would be advantaged (no doubt, together with others) by resource help.

The Children

Wanda suffers from fragile bones syndrome so that she has had 23 fractures in the last seven years, and is confined to a wheelchair. Basically Wanda's upper limb function and speech are normal. She is a delightful extroverted soul, eager to be an integral part of the mainstream. Although she only has 1/2 hour per week of physiotherapy, she needs assistance with toiletting and the anxiety engendered by her condition has until now precluded full regular class placement. Her physiotherapist feels that full mainstreaming will be possible once Wanda has established a sense of safety because any slight mishap would result in great physical trauma. The eventual aim for Wanda is as much mainstreaming as possible with a view to full integration in high school, an aim which her parents fully support.

There is no doubt that Wanda, her parents and her teachers both in the mainstream and the unit feel that academic mainstreaming is appropriate for her. Time on task in academic activities are significantly better in the mainstream, even though it is apparent that Wanda has not mastered all the prerequisites for some of the concepts introduced in maths. Social interaction within the classroom and by the teacher is as positive as for any other class member and she is within the average range of acceptability within the class. Wanda herself is delighted with the concept of mainstreaming, has developed close friendships and enjoys the company of the regular peer group more than that of the other children in the unit. While she feels that the work in the unit is too easy, she is satisfied with the level of difficulty in the mainstream class, even though she would be advantaged if there were more cooperation between mainstream and unit teachers. It would seem at this point, Wanda could benefit from mainstreaming for all academic activities and the unit co-ordinator will be pursuing this aim as the year progresses.

The other target child in the unit, Devlin, also a fifth grader is perhaps more typical of the problems that are encountered with mainstreaming a disabled child from a unit attached to a regular school. Devlin has cerebral palsy which has affected his upper limb function and his communication. He needs an electric typewriter for presentation of written work and assistance with it in order to proceed. His speech is indistinct and laboured, although it is understandable when it is in context. This combination of physical difficulty combined with teaching interrupted by therapy needs in a special school, has resulted in academic skills well below grade average. Thus for him to be mainstreamed in an age appropriate class for maths, for example, would probably not be to anyone's advantage. He has been mainstreamed for craft, at this stage, to take advantage of social integration, but it is perhaps worth considering whether this is indeed the best place to start. If a child like Devlin is to be integrated into a practical subject, then his occupational therapist should alert the teacher to his capabilities so that he can do some independent work. Furthermore, the regular children should be given guidelines about how to approach him without increasing his extensor spasms. Third, a speech therapist or teacher could ease the communication situation, so both regular teacher and regular peers become more familiar with his responses. It may be better to mainstream such a child, once this has been achieved, for social studies, for example, where the teacher input is greater than the child's and where his typewriter could be organised so that he could also make some contribution to the lesson.

Curriculum

Within the support unit the two hours between arrival and recess are devoted to academic skills. The children who are not mainstreamed for these activities are supposed to work from job sheets. In practice, however, it does not appear that the activities are pitched at each child's appropriate level, so that each one continually needs assistance and is off-task when it is not being supplied. For example, Devlin, the non-mainstreamed target child who needs assistance with his typewriter, was observed to have written one line of a story in a 35 minute period. At one stage, when typing practice was organised for Devlin to see how quickly he could type four lines, the timed activity had to be terminated because the teacher had forgotten that this was the time when his typewriter needed repairing. Similarly, another child was constantly off-task because his desk was too high and he could not reach his work. It was not until the Assistant Principal arrived to rectify this that the child was able to continue.

There do not seem to be any academic goals set for the children in the unit, nor for those who are integrated into regular classes. The unit teacher has assumed the regular teacher will undertake responsibility for the mainstreamed children, and at this stage has made no attempt to breach the gap between conceptual level reached and conceptual level needed. There is no doubt she feels more isolated in this milieu than in the overall protective environment of the special school, where the divisions between special and

regular education were non-existent. There is no doubt that the special class can, at best, be a challenging and welcome addition to the cascade of services for special children, but unless its potential for integration is utilised it will not be a positive force for those children who are in it for most of the day.

Family Attitudes

While the parents of children in the support unit had no role in the relocation of their children, it does appear that for Wanda's parents, most, if not all, of their misgivings have been allayed. This, however, is principally because of the amount of mainstreaming which has occurred and which has enabled her to slowly increase her basic skills, even though they are still not at the 5th grade level. Her mother feels that they certainly would not have been maintained in the unit and also feels that therapy time, particularly appropriate OT deployment, has suffered on account of the move. The initial worry about Wanda being spoilt by the over-enthusiastic attention of the regular children has also been allayed, principally because of the work of the Assistant Principal and Wanda's own resilient nature. On the debit side, the unit is not regarded as a charitable institution, as was the special school, so excursions provided by service clubs are no longer provided. However, on the credit side, Wanda's chances of full mainstreaming into the local High School have been considerably enhanced. As Wanda's mother pointed out, for three years prior to the establishment of the unit, she was refused enrolment at her local neighbourhood school and the special school staff as well worried about full time mainstreaming. This support unit has proved to be a very effective transition placement.

Devlin's mother, however, feels much less positive about the relocation and does not feel that the unit has served her son as well as the Special School. Although she feels the attitudes of the school Principal and the school pupils are exemplary, she also feels that the regular staff are not really interested in the children, the therapy services, particularly OT, are less appropriate, academic subjects like maths have gone backwards and the computer skills, learnt at the special school, have not been maintained or carried out. Devlin, is of course, the borderline type child in regards to placement in a special class. The only mainstreaming he receives is in craft, which is not really appropriate in terms of his poor upper limb function and the fact that he can do no part of it independently. Furthermore, his mother does not feel that partial mainstreaming is enhancing his social integration. The therapy assistance, which could be beneficial here, was not implemented and perhaps other avenues for integration which involve technical assistance, but where Devlin can contribute more, should be investigated. Integration into the drama class was stopped after two lessons, but the parents are not clear about the reason. In any event, Devlin's mother would prefer that her son had remained at the Special School.

CONCLUSION

The placement of this support unit at this regular school must be judged a success in terms of comments of all staff involved. Both the Principal and the Assistant Principal are extremely positive about its placement, general staff attitudes are positive, and Wanda's parents are, on the whole, enthusiastic. While the support class teacher has some reservations in terms of her own role, this suggests an inadequate preparation for unit teacher staff and perhaps whole school co-ordination. One of the factors that has been stressed in this case study is the most appropriate role of the support teacher. To achieve maximum acceptability and maximum usefulness within a regular school, the trained unit teacher should not only be a resource to any mainstreamed student, but also, as part of the trade off, to any regular student experiencing difficulties. This needs expert programming, but as it would enhance the academic skills of a number of students, both regular and special, it would certainly be a welcome addition to an overburdened regular staff. It would also confirm the support unit's place within the regular school.

In addition to these factors, the role of the therapy staff must also be clarified. While they are employed by the Health Department, they are working within an educational framework and must be able to accept this model. This means that not only must they supply individual therapy to children with physical disabilities, they must also assist in the mainstreaming program so that the physiotherapist could assist at recess to help the regular students understand physical interaction. The OT could assist in integrated craft lessons and with communication in regular classrooms. There is no doubt that a special class on site can be a valuable addition to assist children with disabilities but the staff and therapists need to be trained, there must be a trained, credible co-ordinator and roles must be clearly delineated.

The question still remains about the positive nature of the unit for those children for whom only social mainstreaming and some marginal academics mainstreaming is possible. For these children such as Devlin with poor communication skills, poor upper limb function and relatively weak academic skills, the situation is much more problematic. For the type of child whose motivation is strong and whose parents feel strongly about integration, it is probably a better option if unit staff, therapy staff and regular staff co-ordinate in an exemplary fashion. If, however, the child himself is more passive, and there is a lack of effective co-ordination, the parents, less committed to integration, appear to opt for the special school.

CASE STUDY 68 - MARYANNE

DISABILITY: MILD INTELLECTUAL

GRADE: SUPPORT CLASS (IM)

INDEX OF SUCCESSFUL PLACEMENT: 93%

The School

Maryanne is enrolled in one of two IM classes at a large, modern primary school in the outer metropolitan area. The predominantly working class community contains only a relatively low proportion of people with ESL backgrounds, but there is a high incidence of unemployment, single parent families and related social problems.

The school principal retired early in 1988, following a long period of intermittent illness. The Acting Principal had been his deputy for a number of years and had, accordingly, acted in the position quite often over the preceding years.

The previous principal had supported the policy of integration and, therefore, had accepted the placement of support classes at the school. Initially, there had been some reservations about this from the staff. The Acting Principal felt that this reflected a lack of prior consultation. He, therefore, has adopted a policy of full and open discussion with the staff before any major decisions are made. He also strongly supports the integration of students with the support unit, which now consists of four classes: 2 IM and 2 IO. He believes, however, that the success of integration at this school largely reflects the exceptional skills and capabilities of its Executive Teacher whom he clearly holds in high regard. Under her leadership, a detailed school policy on integration has been developed and implemented. He believes integration is working well at this school because of a combination of careful planning, full consultation with other staff, high credibility of the unit staff and the expertise provided by the executive teacher. Because of these factors, the program now has the unqualified support of the whole staff.

The Class

The junior IM class is located in a four room block, adjacent to the senior IM class. There is an inter-connecting door, which enables free movement of students between the two IM classes.

This location has the advantage of facilitating streaming in Maths and Reading across the two IM classes, and also allowing maximum consultation between the two IM classes. The disadvantage is that it limits the opportunities for informal integration between the IM children and their regular class peers.

At the time of observation, there were 17 students in the junior IM class, aged 8-10. Nearly all had been drawn from regular classes at the host school and only rarely is an enrolment accepted from

outside, as there is always a waiting list for IM placement from within the school itself. Maryanne's teacher, who is the executive teacher for the unit, believes that this school-based nature contributes significantly to the success of the IM classes.

At the beginning of the year, the class had a series of casual teachers because there was no new permanent teacher available. After 6 weeks the class was highly unsettled and "out of control", so the ET stepped in and took over the class herself. There were many serious behaviour problems evident at this stage, some reflecting social problems at home. Two of the children came from particularly difficult family situations and one has been seeing a psychologist on a regular basis because of his disturbed behaviour.

When the observations were taking place in June, the class had been brought well under control and there were few signs of the previous severe behaviour problems. Thus, the teacher was able to work effectively with one group while the others remained generally on task at their own seat work. This is reflected in a class on-task figure of 56.4% - significantly higher than for any of the other IM classes included in the sample. When first tested early in the year, a number of the children were non-readers. However, all had responded to the intensive, highly structured reading program, to make an average gain of 15 months in their reading accuracy - with some children making more than 2 years progress over the 8 months. Significant gains were also made by nearly all the class in Maths computational skills.

The Teacher

Maryanne's teacher has had a total of 13 years teaching experience in a variety of settings: regular class, special school and support class. She has had both pre-service and post graduate training in special education, the latter taking the form of a Masters Degree in Special Education. Although, she herself comments that the constraints of the school situation limit the application of this specialised knowledge in the classroom, nevertheless the class responds extremely well to her teaching strategies.

In addition to her use of a very structured approach to teaching, particularly in reading and language skills (structure score - over 80%), her specialised training is particularly evident in her excellent classroom management skills (classroom management score - 97.6%). This teacher appears to be always in complete control of her classroom. The teaching is fast-paced, and with minimal down-time during academic periods. Children move smoothly from small group instruction to seat work and from one academic activity to another with a minimum of fuss and noise. Appropriate behaviour, good work and obvious effort are immediately rewarded using enthusiastic verbal praise and a points system which is applied very consistently throughout the day. Despite the brisk, business-like atmosphere during academic lessons, the classroom climate was always warm and caring (classroom climate score - 75.4%) and the teacher's quick sense of humour and obvious regard for her pupils ensures that lessons are also fun.

Although her role as Executive Teacher for the four-class support unit has made large demands on both her time and energy, Maryanne's teacher endeavours to ensure as little disruption as possible to the class routine by working in her recess and lunch breaks. She was rarely observed just to "sit" at these times but was usually running from one task to another or from one discussion to another. Nevertheless, she takes her supervisory role very seriously, as few of her unit staff have had any special training. Thus, the executive teacher has to give "on the job" training, assist with the development of appropriate programs in each class and monitor classroom activities by spending at least some time in each of the other three classrooms each week. As well as staff recruitment, training and supervision, she is responsible for the acquisition and deployment of extra resources as needed for the unit.

In addition to her demanding duties within the school, this teacher is also in demand at regional level because of her highly regarded skills and experience. She has organised a number of regional workshops on integration and has acted as a part-time regional integration consultant at various times over the past two years. Her support unit has been nominated as a "light house" model by regional integration staff.

Curriculum

There is a strong emphasis on the development of basic skills in this classroom and most of the morning is devoted to reading, maths and language-related activities. Because of the severe basic skill deficits exhibited by these children on entry to the class, this is seen as a very high priority.

The development of appropriate social behaviours, often another area of deficit in IM children, is encouraged through the enunciation of clear rules of conduct and social norms which are consistently expected and reinforced throughout the school day. Appropriate behaviour is similarly expected and reinforced by all staff within the school, ensuring that classroom standards are generalised to other areas of the school.

The curriculum also includes time for music, sport, computers and social studies. The first three of these, which are not taught by the class teacher, provide opportunities for integration between the IM and regular class students. The social studies theme during the period of observation involved an Aboriginal perspective on the Australian bi-centenary (two of the children in the class were Aboriginal). Although formal music lessons take place outside the classroom, there is a piano in the room and the teacher occasionally accompanies the class for a less formal period of singing.

The Child

Maryanne's problems initially manifested themselves in the language area - she did not begin to talk until three, and tended to let others speak for her. She did not attend pre-school but began school at four and a half. Her poor language and social immaturity

resulted in her repeating kindergarten. Her academic problems also became evident at this stage and, at the end of 2nd grade, she was still virtually a non-reader, despite assistance from a resource teacher. She was also very shy and withdrawn - afraid to speak out or answer questions in class in case she was wrong. Accordingly, the decision was made to place her in the IM class in 3rd grade.

Maryanne has made good gains in both reading and maths skills in her first two terms in the IM class and, although still a reserved child, is displaying a greater readiness to participate in classroom discussions and answer questions. She is well accepted by her peers in the classroom, and mixes happily with both her old and new classmates in the playground.

Parental Attitudes

Maryanne's mother was happy with the decision to place her in the IM class as she felt that the smaller class size would ensure more individual attention for Maryanne - both to improve her academic skills and help her develop more self-confidence. She tended to be last in the regular class.

One of her special friends from 2nd grade also moved into the IM class with Maryanne - so that, socially, she was just as happy as in her old class. Although her mother hopes she will be able to move back into a regular class by the time she goes to high school, for the present she feels Maryanne is benefiting greatly, both academically and emotionally, from the smaller IM setting.

Integrated Activities

All members of the IM class have a number of opportunities to mix with children in regular classes, but integration is confined to the more non-academic subjects such as music, sport and computers. In the teacher's view, the students are in her class precisely because they were not coping with academic subjects in the regular class and, therefore, there is no point in putting them back into a regular class for these subjects. Because the children are almost all drawn from the host school, however, they all have friends in the other classes and appear to mix well in the playground. Hence, there is not the same clear identification and possible stigmatisation of the class as a whole group, as occurs when they are drawn from other schools.

Resources

The IM class at this school is well equipped in terms of physical resources. The four support classes share one full-time aide but priority tends to be given to the IO classes whose needs are seen to be greater. The IM teacher makes use of the aide for a short period each week for help in areas such as photocopying and, when possible, for maths groups. Parent volunteers are also used effectively to assist with maths groups.

The efficiency and excellent classroom management skills of this particular IM teacher make further in-class assistance unnecessary. However, her duties as an executive teacher are very demanding and cannot be fully accomplished during her official release from face-to-face time.

CONCLUSION

Maryanne's placement in an IM class appears to have been very beneficial, both in terms of the evident gains she has made in basic skills, and her increased self-confidence in class. Much of this success must be largely attributed to the particular expertise and competence of her teacher. Her excellent classroom management skills have meant the elimination of disruptive behaviour problems which frequently characterise IM classes. This, in turn, has enabled the dedication of a high proportion of time to instruction in basic skill areas, while still leaving adequate time for other activities.

The strong support for this teacher from the school executive, her own high credibility and the fact that the IM class is school-based, are all factors which appear to have contributed to the effectiveness of this IM placement.

CASE STUDY 71 - GERALDINE

DISABILITY: MODERATE INTELLECTUAL DISABILITY

GRADE: SUPPORT CLASS (IO CLASS)

INDEX OF SUCCESSFUL PLACEMENT: 87%

School

This is a medium-large school in a high socio-economic area with a relatively long history of integration. A Down Syndrome child had been fully mainstreamed within the infants section of the school, prior to the establishment of an infants OF (now IO) class at the school. This was followed, three years later, with the establishment of a senior OR (now IO) class within the primary section of the school to cater for the children from the initial intake into the infants class as they reach primary level.

In addition to the two well established support classes, the school has several students with spina bifida including two children in wheelchairs within mainstream classes. The school's executive staff and the parent community appear to be justly proud of the school's record in integration and the staff, in general, appear to be positive and supportive, although the wheelchair children had generated some anxiety in the initial phases of integration.

The school functions almost as two separate schools because of the physical separation of the infants and primary departments. This has meant that children initially integrated at infants level are not very visible to primary children and staff. Thus the process of acceptance/acclimatisation has had to be repeated at primary level. The physical separation also effectively limits the "population" of IO children in each area of the school to one class only, except at infrequent "full school" occasions. The existence of the second IO class does, however, provide opportunities for the two support class teachers to communicate with each other and provide each with both moral and professional support.

The Classroom

Although most of the buildings in this school are of an older style, the classroom is nevertheless large, bright and airy. The senior IO class is part of a two-classroom unit with a shared cloak room area. The adjoining class is a fourth grade class, and the two teachers (both male) appear to have a close working relationship, fostering a corresponding closeness between their students. The IO students attend craft lessons once a week with the fourth graders and during the observation period, the two classes joined together to give a surprise birthday party for the fourth grade teacher. The classes also line up together to enter their classrooms and this, plus the shared cloakroom area, provides a number of informal opportunities for social exchange and contact.

Within the classroom, the desks are arranged fairly formally in pairs but the size of the room allows a number of special purposes areas. Thus, in addition to the fairly formal desk area there is a group of tables where all the children may be seated as a group, an informal reading area (with bean bags), a large "counter" which ca be used as, for example, a shop counter, a storeroom and 2 - 3 more secluded desks for quiet individual work (e.g. with a language master). The classroom is academically oriented and is well stocked, with a good selection of books for reading, scales and other equipment for assistance in Maths, and a number of wall charts displayed to give visual clues and reinforcement in the areas of both maths and reading.

Geraldine sits at one of the front desks next to a boy with an ESL background. The class appears to have developed a high degree of cohesion - all but Geraldine have been at the school from Kindergarten stage, when the infants IO class was first established. Geraldine entered that class after one year in a regular Kindergarten at another school. Two other children from the class moved on to local IM classes at the beginning of the year. Their teacher sees this as evidence of the academic success of the class. He also feels the class compares favourably with the local special school in terms of curriculum and academic achievement.

The Teacher

Geraldine's teacher established the senior IO class three years ago on completion of a post-graduate diploma in Special Education. He had previously taught for two years in a regular class. The teacher of the IO class has a number of wider school responsibilities, particularly in the area of sport and health education. He coaches sport in a number of areas, arranges sports carnivals and organises participation in inter-district competitions and carnivals. As well as general playground supervision, he also regularly takes other classes within the school (for sport) while other teachers regularly take his class (e.g. for Italian, craft etc.). Once a week, students from other (regular) classes visit the IO class, and one child from a regular third class spends approximately one hour each morning in the IO class for reading.

The teacher's manner with the class is friendly, but business-like and he uses a highly structured approach to instruction. The students' progress is monitored continually - all work is marked immediately on completion, and performance data recorded in many areas each day. The children work independently on most tasks, but the need for individualised curricula is limited because the children's functional levels in most areas are fairly close. For example, in May their reading ages varied from 6.1 to 8.11 in terms of reading accuracy, and from 5.7 to 6.8 in terms of reading comprehension (Neale Reading Analysis) and all are performing at around Grade 1 level in Maths. Individual differences are nevertheless taken into account in spelling, for which they are divided into three groups, and oral/silent reading. Although most Maths instruction is given as a whole class lesson, individual differences are catered for by means of additional guided practice

for those who are slower to grasp new concepts, and the provision of additional practice examples at different levels.

Classroom Management

The lessons are fast paced and there is very little "down time" evident. Every hour or so, the teacher gets the students up to do 2 - 3 minutes of exercises - hopping, jumping on the spot etc. He expects a high standard of both behaviour and work from all the students, and good manners towards all adults and peers are continually reinforced. Some quiet chatter is tolerated, but students are generally expected to complete their seatwork with a minimum of fuss and interaction. As a result, "on task" behaviour during seatwork is generally quite high - close to 70% on average for the class as a whole. The target child's "on task" behaviour tended to be higher - nearly 85% on average compared with 68% for the other four. This, to a large extent, appears to reflect the fact that Geraldine is slower to complete most tasks than her peers. Thus the faster children would sometimes have more scope to be "off task" while still completing their seatwork during the required time. Despite his usually business-like manner, the teacher demonstrates a genuine concern and interest in each student and they all appear to be happy and to enjoy their classroom activities. Discipline problems appear to be minimal, as the teacher has a firm and consistent manner in handling classroom behaviour. This reflected in a particularly high "classroom management" score for this teacher (93%).

Although the children were reasonable independent in the classroom in terms of following classroom routines and instructions, the teacher did not appear to use particular strategies to encourage a greater degree of independence. For example, working materials were generally organised for the students by the teacher and/or aides, and all work was corrected by the teacher.

Curriculum

The curriculum followed by this class is much the same as that followed in the regular classes of the school. There is a strong emphasis on basic academic skills, with the greater part of each morning devoted to maths, reading, spelling and a variety of other language activities, including oral and written news. As all the children in the class come from reasonably stable, middle-class families, their social and personal independence skills are at a high level. Hence such skills require reinforcement only in the school situation. The children also participate in a range of community activities with their families, so once again, "instruction" in community functioning is not a high priority for this class.

The class participates in the same non-academic "extra" subjects as all other classes at the school, i.e. music, Italian, art/craft, library, computers and sport. Apart from one half-hour period for library and one hour of craft these are all scheduled for the afternoons. An examination of the timetable shows the following proportional time allocations over the week:

	Time in Minutes	%
Maths	225	17
Reading	225	17
Language	175	13
Spelling/Writing	170	13
Sub-Total - Maths & Language Arts:	795	60
Social Studies/Science	145	11
Health/Living Skills	75	6
PE/Sport	85	8
Extras *	200	15
Sub-total - other subjects:	505	40

* Library, Music, Italian, Art/Craft

Integrated Activities

All five children in the IO class participate in the same integrated activities. While none of the children is integrated for academic subjects, all are involved in a range of other integrated activities including school assemblies, music, sports activities (PE) and craft lessons. The class attends weekly PE and craft classes with one of the 4th grade classes. Thus the main integration emphasis for this particular class is on social integration. The teacher reports that the attitude of other staff and students to these integrated activities has been generally very positive. The children participate well in most of these activities (particularly PE). In the playground, the IO children are reasonable well accepted by the rest of the children, although they appear to spend their time mainly with 1 or 2 peers from their own class. On one occasion, several of the class were observed playing cricket with a small group of 3rd graders (including one child in a wheelchair from 3rd grade). On another occasion, they participated in team ball games at the instigation of their teacher. No signs of teasing or rejection by other children were observed nor was the behaviour of the IO children ever observed to be inappropriate. The same standards and expectations of behaviour are applied to the IO children as to those in regular classes.

The Child

Geraldine is a good-natured, friendly child, whose problems did not really become evident until she began school. Her failure to progress during kindergarten, together with some general co-ordination problems, led to her referral to the Junior IO class at her present school. She has made slow, but steady, progress in academic areas in the IO class but is expected to continue to require the more individualised and structured approach in the IO

class if she is to continue to make progress. Socially, she is well accepted by her peers in the IO class and generally tolerated good-naturedly by the children in regular classes in the playground or in integrated activities (such as craft).

Family Attitudes

Geraldine's parents, while generally pleased with her progress in the IO class, would like to see her eventually returned to a regular class, perhaps in high school.

CONCLUSION

Geraldine's placement in an IO class appears to have assisted her to make steady progress in both reading and maths. She is happy in her class and at school. The IO children, as a whole, are well accepted by the host school - probably because they have all been there since the early infants years and, thus, are all well known by their regular peers. Although the attitude of the latter may sometimes appear somewhat patronising, there also appear to be genuine tolerance and acceptance displayed by many of the regular students. It is possible that Geraldine and her classmates could benefit in the future from some integration in academic areas, in addition to the successful integration that is already occurring in non-academic areas.